Report of the Committee on University Affairs of Ontario 1969-70

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The Honourable William G. Davis, Q.C.,
Minister of University Affairs,
Room 369,
Parliament Buildings,
Toronto 2, Ontario.

Dear Mr. Davis,

On behalf of the Committee on University Affairs I have the honour to present a report of the activities of the Committee for 1969-70.

As well as reviewing the formal actions and recommendations of the Committee, the report contains some general comments relating to current issues and problems, discussion of which, it is hoped, will lead to future policy recommendations. Following the practice inaugurated last year, this report contains a five year plan for university development in Ontario, now carried forward to 1975-76.

Yours sincerely,

Douglas T. Wright,
Chairman, Committee on University Affairs.

Members of Committee on University Affairs 1969-70

DR. DOUGLAS T. WRIGHT (Chairman)
DR. M. ELIZABETH ARTHUR,
Professor of History, Lakehead University
DR. ARTHUR N. BOURNS,[1]
Professor of Chemistry and Vice-President, Science,
McMaster University
MR. WILLIAM DODGE,[2]
Secretary-Treasurer,
Canadian Labour Congress
THE HONOURABLE LESLIE M. FROST, P.C., Q.C.
DR. GEORGE E. GATHERCOLE,[3]
Chairman, The Hydro-Electric Power
Commission of Ontario
DR. REVA GERSTEIN,
Honorary Fellow, Founders College
York University
MR. JAMES O'N. HUGHES,
President and Chairman
A. E. Ames and Company Limited
DR. MAURICE J. LAVIGNE
Manager, Physical Metallurgy Department,
Falconbridge Nickel Mines Limited
MR. ROBERT W. MITCHELL, Q.C.
Vice-President,
Supertest Petroleum Corporation Limited
DR. JAMES G. PARR,[4]
Dean of Applied Science,
University of Windsor
DR. ROGER J. ROSSITER,
Vice-President Academic,
The University of Western Ontario
DR. DAVID W. SLATER,[5]
Professor of Economics, Dean of Graduate Studies,
Queen's University

[1] *Dr. A. N. Bourns resigned April 30, 1969*
[2] *Mr. William Dodge was appointed October 1, 1969*
[3] *Dr. G. E. Gathercole resigned April 30, 1969*
[4] *Dr. J. G. Parr was appointed October 1, 1969*
[5] *Dr. D. W. Slater resigned July 1, 1970*

Terms of Reference

The terms of reference of the Committee on University Affairs, established by Order-in-Council, charge the Committee:

"to study matters concerning the establishment development, operation, expansion and financing of universities in Ontario and to make recommendations thereon to the Minister of University Affairs for the information and advice of the Government".[1]

Within these broad terms the Committee acts in response to requests from the Minister of University Affairs for advice on matters of concern, in response to representations from universities, singly and collectively, and on its own initiative.

Changes in Membership

During 1969-70 the Committee on University Affairs lost three members through resignation. Dr. George E. Gathercole had been a member of the predecessor Advisory Committee from its organization in 1961 and of the Committee on University Affairs from its inception in its present form in 1964. His resignation from the Committee on University Affairs reflected his increased responsibilities at The Hydro-Electric Power Commission of Ontario of which he became Chairman in 1966. Dr. Arthur N. Bourns had also been a member of the Committee on University Affairs from its reorganization in 1964. He had proposed his retirement from the Committee in 1968 when he was appointed Vice-President, Science at McMaster University. Because of the Committee's need for his assistance, he was persuaded to serve an additional year. Dr. David W. Slater resigned from the Committee upon his appointment to the presidency of York University. The Committee wishes to acknowledge here its appreciation for the considerable services these members have rendered during the terms of their membership.

Two new members were appointed in 1969-70. These are Mr. William Dodge of Ottawa and Dr. James Gordon Parr of Windsor. Mr. Dodge has been active in the Canadian labour movement for a number of years, and is now Secretary-Treasurer of the Canadian Labour Congress. He served for a time as a member of the Board of Governors of the University of Waterloo. Dr. Parr is a metallurgist who is Dean of the Faculty of Applied Science at the University of Windsor.

1 *Order-in-Council No. 4157/64; December 17, 1964.* (*See Appendix*)

Scope of Concern

The Committee on University Affairs is responsible for advising the provincial government on matters relating to the fourteen provincially-supported universities: Brock, Carleton, Guelph, Lakehead, Laurentian (including Algoma and Nipissing Colleges), McMaster, Ottawa, Queen's, Toronto (including Scarborough and Erindale Colleges), Trent, Waterloo, Western Ontario, Windsor and York. The Committee also deals with questions of support for the Ontario College of Art, the Bar Admission Course, the Art Gallery of Ontario, the Royal Ontario Museum, and the Royal Botanical Gardens.

In 1969-70, the Committee on University Affairs has continued to be principally concerned with general planning and policy development and, within this context, has developed specific recommendations for financial support in the fiscal 1970-71.

Conditions are challenging. There seem to be contradictions, almost a kind of schizophrenia, in attitudes towards higher education. On the one hand young people in greater numbers are qualifying themselves for and seeking access to higher education every year. Parents encourage their children to seek more education and employers tend increasingly to demand more education, reflecting, presumably, the need for flexibility and for more highly developed skills and understandings for a rapidly changing world. On the other hand, young people can be heard complaining of being "conscripted" into university, and many complain about what they perceive as irrelevance. In the extreme this has been related to an interpretation of students as a privileged and separate or even alienated class in society. At the same time, there is growing concern about levels of expenditures on higher education.

The Committee on University Affairs has sought to develop greater understanding of these issues and factors and, through its recommendations, has endeavoured to the best of its ability to contribute to the development of a strong and flexible system of higher education of quality, operating efficiently and without waste.

It is important to realize that the university system of Ontario is large, involving directly over a quarter of a million people as students (full-time and part-time), faculty members and other staff. The universities are, legally, autonomous corporations. Within the universities there have been developing in the past few years much more effective procedures for communication among administrators, faculty members and students. Formal decision-making structures in the institutions are being changed, fairly quickly, to reflect this. In the light of these factors, it is clear that such centralized

agencies as the Committee on University Affairs and the Department of University Affairs should concern themselves principally with general matters of policy, and with the total resources employed and results obtained, and not seek to interfere in details of administration. Such an approach seems to be as much justified by the concept of effective management in large systems, as by the more traditional notions of the defence of university autonomy.

It is these general considerations that have led the Committee on University Affairs to urge the Government of Ontario to adopt such measures as the operating and capital grants formulae. The Committee on University Affairs continues to believe, most strongly, that the university system of Ontario will better serve the people of Ontario in both the short and the long run without excessive regulation of detail. The very real benefits of such an approach must necessarily be bought at a certain price. Some local decisions will appear to be less than perfect and, in fact, the Committee on University Affairs has frequently been urged to respond to special local concerns to "set the situation right." With forebearance, the Committee has usually managed to avoid such temptation. Experience indicates that in most cases the general policies that have been established will work effectively once they are fully understood. The Committee's policy on "openness", which will be discussed further in a later section of this report, has an important bearing here.

In 1969-70 the Committee on University Affairs held 19 meetings, of which nine were convened at universities in different parts of the Province. In the 1968 meetings, when five-year institutional plans were first put forward, the Committee spent at least a day on the campus of each institution. In 1969, the burden of travel was somewhat reduced by bringing several university delegations to a single centre for a two-day set of hearings. In the 1969 hearings the primary focus of concern was the updating and revision of the five-year plan submitted the year before, with the addition of an extra year (1975-76), and a detailed review of physical planning and capital development in the light of the introduction of the interim capital formula.

By 1968 the Committee's hearings with universities frequently had come to involve students and faculty as members of university delegations. The 1969 hearings involved a significant step forward. The hearings themselves and all the documents assembled (the university briefs) were formally made "open", and provision was made for spectators.

The procedures for the open meetings were carefully worked out between the Committee on University Affairs and the Committee of Presidents of Universities of Ontario so that they could be applied uniformly. Under these procedures, each university determined the composition of its own official delegation. In fact, all university groups that year included significant representation by faculty members and students, as well as much larger numbers of interested deans and department heads who augmented the usual core group of senior administrative officials and board representatives. The meetings were constituted formally as meetings of the Committee on University Affairs, with the Chairman of the Committee on University Affairs presiding. Where there were space limitations for spectators and press, each university handled the necessary arrangements.

It must be acknowledged that the development of these arrangements caused some apprehension in various quarters. The experience can be said, without qualification, to have been uniformly good. Factors affecting decisions, the views of the Committee on University Affairs, and the nature and significance of Government policies were explained and communicated more fully than ever had been the case before. The Committee on University Affairs is of the opinion that these open hearings not only helped the universities to assemble the most effective possible delegations, but also helped each university community to understand better its own institution and its problems through preparing for the briefs and hearings themselves.

The informational requirements for the annual briefs to the Committee on University Affairs and the Department of University Affairs are undoubtedly burdensome. Much work is required for their preparation. Every effort is made, each year, to provide the earliest possible indication of information required for the fall hearings.

All the university briefs and the related minutes of the Committee on University Affairs are now available to the public in various university libraries, in the Legislative Library and in the library of the Department of University Affairs, so that it is not necessary in this report to recount details of institutional development and plans except as they relate to the general issues discussed.

Without doubt the individual university briefs received in 1969 provide evidence of sophisticated planning and effective use of resources. Whereas, in the past, university briefs tended principally to present pleas for support with arguments of varying cogency, often reflecting aspirations rather more than reality, in the university briefs of 1969, discussions of levels of support were related to objective criteria of service and performance.

In the fall of 1969 the Committee on University Affairs again met with the Committee of Presidents of Universities of Ontario twice, once before the start and again at the end of the hearings with individual institutions. These general meetings provided a valuable opportunity for the discussion of general criteria and problems.

In 1969 the Committee on University Affairs also received a delegation from the Ontario Confederation of University Faculty Associations. This meeting was undertaken only reluctantly, the Committee having declined a request to meet such a delegation in 1968 and earlier in 1969 because it did not wish to concern itself with or constrain internal university budgets, in particular expenditures such as salaries, for fear of prejudicing university autonomy. In fact, the meeting provided for an effective discussion of some general issues relating to university support.

Subcommittees

Supporting the general work of the Committee on University Affairs are a number of subcommittees. The subcommittees function primarily as technical working parties on planning and policy development.

In several cases the subcommittees meet jointly with corresponding subcommittees named by the Committee of Presidents of Universities of Ontario. The notion of joint subcommittees developed some years ago with the purpose of bringing together representatives from universities and the Committee on University Affairs in a working relationship, with officials of the Department of University Affairs as the secretariat, in order to provide the fullest understanding of specific problem areas. It is of course an almost trivial matter for any agency or interested party to develop a policy proposal reflecting only its own concerns; there is no shortage of evidence to the effect that such policies seldom work happily, and usually work at all only under duress. Experience in Ontario in the development of university policy recommendations by joint working groups has been good. Problems have been fully explored in all their aspects, and simplistic solutions readily identified as such. Naturally, the working committees do not concern themselves with levels of support and matters particularly affecting individual institutions, but rather are concerned with the general logic and form of major policies, and subsequent questions of interpretation.

During 1969 procedures relating to the joint subcommittees were formally confirmed by the Committee on University Affairs and the Committee of Presidents of Universities of Ontario to provide for equal membership, co-chairmen and the establishment of common terms of reference. Joint committee reports are submitted simultaneously to both parent bodies, with a period then provided for consideration, and as necessary, a joint meeting of the parent bodies is called before final recommendations are proposed to the Minister of University Affairs by the Committee on University Affairs.

In 1969-70 the following subcommittees were active.

1. Joint Subcommittee on Finance (Operating Grants Formula)
   - Dr. M. E. Arthur, Dr. D. W. Slater, Dr. D. T. Wright (Chairman) — Committee on University Affairs
   - Dr. T. Batke, Mr. A. Johnson, Mr. J. Sword, Mr. B. Trotter, Mr. B. Hansen, (Technical Advisor) — Committee of Presidents of Universities of Ontario
   - Mr. J. S. Bancroft, Department of University Affairs (Secretary)

   This subcommittee is concerned with interpretations of and revisions in the operating formula grants policy.

2. Joint Subcommittee on Capital Studies
   - Mr. D. M. Hedden, C.P.U.O., Dr. D. T. Wright — Co-chairmen
   - Dr. J. G. Parr, Mr. R. W. Mitchell — Committee on University Affairs
   - Mr. A. K. Adlington, Mr. W. G. Tamblyn — Committee of Presidents of Universities of Ontario
   - Mr. J. D. McCullough, Department of University Affairs (Secretary)

   This subcommittee is concerned with a formula for capital grants.

3. Subcommittee on Graduate Studies and Research
   - Dr. R. Gerstein (Chairman), Dr. M. J. Lavigne, Dr. J. G. Parr, Dr. R. J. Rossiter — Committee on University Affairs
   - Mr. A. P. Gordon, Department of University Affairs (Secretary)

   This subcommittee is concerned with special programs for direct support of graduate students and research.

4. Subcommittee on Educational Technology
   - Dr. J. B. Macdonald, Dr. D. C. Williams — Committee of Presidents of Universities of Ontario
   - Dr. J. G. Parr, Dr. D. T. Wright — Committee on University Affairs

Study of Educational Technology

The Committee on University Affairs has become concerned that in order to take full advantage of the possible benefits of educational technology to university education in Ontario, it may be necessary to make alterations in certain prevailing administrative and financial procedures. For this reason, the Committee on University Affairs, in consultation with the Committee of Presidents of Universities of Ontario established a new special joint subcommittee to study this area with a view to developing an understanding both of what educational technology might offer, and to learn what policy structures would be required to facilitate its use. The joint committee has arranged for Mr. Bernard Trotter of Queen's University, who has extensive experience in both broadcasting and in university work, to carry out the study. In particular Mr. Trotter has been asked to study and report on ways in which educational technology might:

1. Reduce the cost of operating present programs at present quality/output levels,
2. Improve the effectiveness (quality/output) of present programs at present cost levels, and
3. Improve accessibility to formal higher education and continuous learning especially for those not now participating effectively (people in remote areas, disadvantaged socio-economic groups and so forth) in a cost-effective fashion.

It is expected that the study will be completed by the end of 1970.

Data Bank

The work of the Committee on University Affairs demands increasing amounts of data. Not only is planning dependent upon quantitative standards and measures, new policy proposals must often be based on and tested by specific data input. The Department of University Affairs also requires increasingly detailed data for the administration of the operating grants formula and other policies. For their own purposes as well, the universities are themselves greatly involved in compiling and using data of all sorts. But the demands for data do not end here. The work of the Committee of Presidents of Universities of Ontario, the Dominion Bureau of Statistics and other agencies, as well as the projects undertaken by many research workers, burden the universities with requests for data for various studies, reports and analyses.

It was only natural then that the notion should have arisen of a common data bank serving the multiple needs identified above. Such a development could presumably provide benefits of convenience, economy, consistency and speed.

In considering the use of data some quite important problems in principle need to be acknowledged from the outset. First, the use of the computer permits storage of great quantities of data conveniently and cheaply. Access to data, particularly data relating to individuals, must not be abused. There have been some proposals for safeguards so stringent as to prevent research on such important topics as the effectiveness of student assistance programs in promoting equality of opportunity; research which, of course, requires knowledge about the socio-economic status of students and their families. Access must certainly be most scrupulously guarded against abuse. But legitimate research concerns as well as the concerns, say, of student and faculty organizations certainly should not be denied. Guidance may come in time from legislation regarding control and use of data. As increasing amounts of data come to be accumulated it may be expected that there will come to be developed general statutory provisions for the protection of individual rights and privileges in this fragile and sensitive area. The individual should have the right to know the source, date of entry, and content of information concerning him and should have the right to challenge the accuracy of stored information. It has been suggested, as well, that an "audit trail" describing the accessing of personal data should be established, and that this record, too, should be open to the individual concerned.

In 1969 the Committee of Presidents of Universities of Ontario completed their own study of information requirements and developed a proposal for an information system through which the Committee of Presidents would collect, store and analyse data for their own purposes and as well for the Committee on University Affairs and the Department of University Affairs. The proposal suggested a degree and kind of control over access to data and analyses which would be clearly unsuitable for the fulfillment of the responsibilities of the Department of University Affairs and the Committee on University Affairs.

The Committee on University Affairs and the Department of University Affairs, viewing this situation, proposed as an alternative a data bank maintained by a neutral service agency (either a contractor or a special organization created especially for this purpose) which would collect and store data and provide reports in the form of aggregations or compilations to various users, under the general scrutiny of a special board created to oversee the operation and regulate use and prevent abuse of data. It was the view of the Committee on University Affairs that from such compilations the various interested parties could undertake

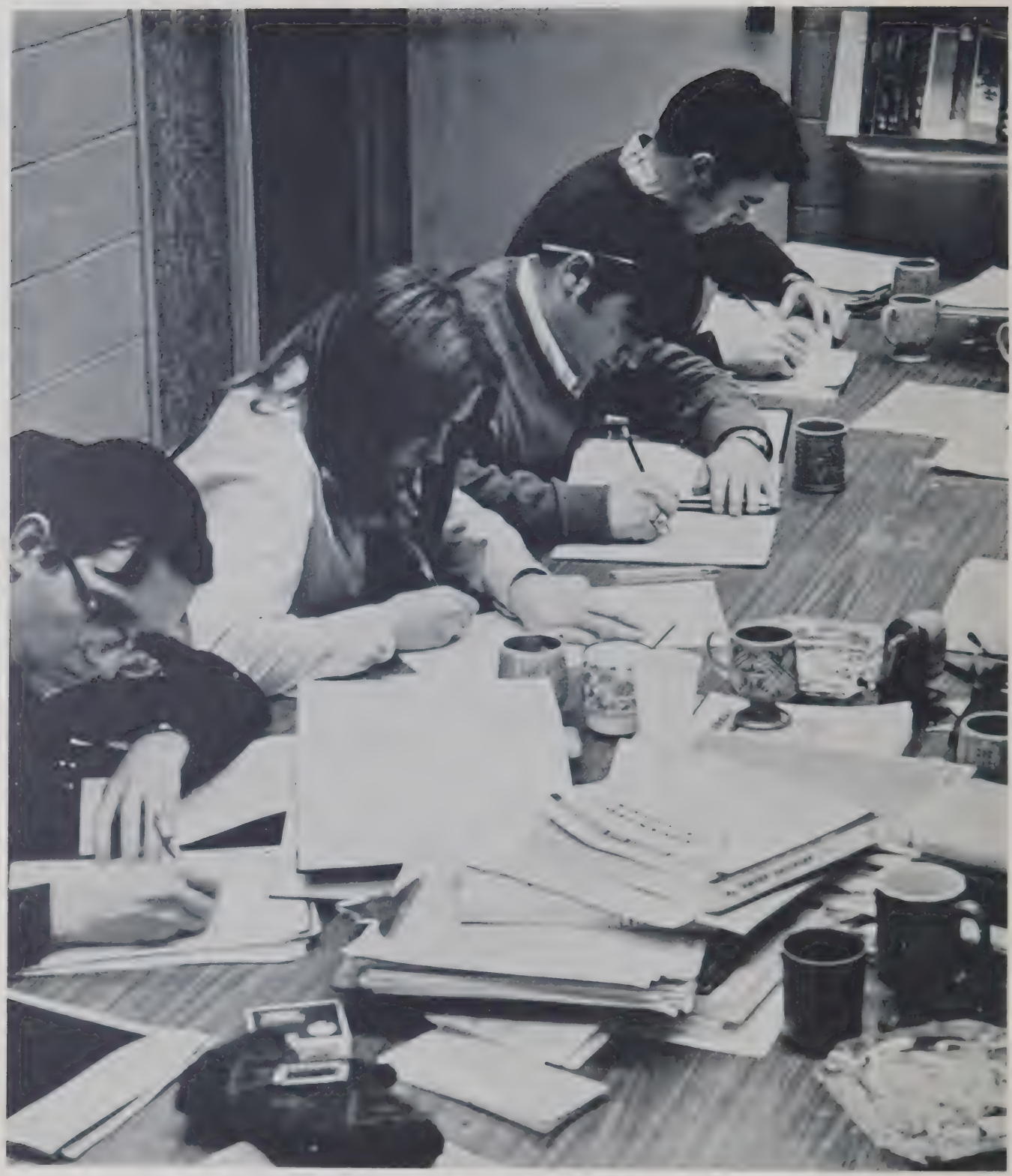
their own analyses for the sake of policy development and the preparation of arguments pro and con relating to various issues of concern.

At this writing the Committee of Presidents of Universities of Ontario, the Department of University Affairs and the Committee on University Affairs are continuing discussions in an effort to establish a system of joint control.

More information concerning the work of the Committee on University Affairs is to be found in the previous reports of the Committee. The companion reports of the Minister of University Affairs[1] provide statistical and other information, including details of grants and enrolment statistics, which accordingly are not reproduced in this report. Reference should also be made to the annual reviews of the Committee of Presidents of Universities of Ontario[2].

[1] *Reports of the Committee on University Affairs, 1967, and 1968-69; Reports of the Minister of University Affairs of Ontario 1967, 1968-69, and 1969-70.*

[2] Collective Autonomy, *Second Annual Review of the Committee of Presidents of Universities of Ontario, 1968;* Campus and Forum, *Third Annual Review of the Committee of Presidents of Universities of Ontario, 1969;* Variations on a Theme, *Committee of Presidents of Universities of Ontario Fourth Annual Review, 1969-70.*



In 1968 the Committee on University Affairs adopted a five-year horizon for general planning purposes beyond the single year or two-year period for which recommendations and estimates are finally prepared. Accordingly, last year, projections were developed to 1974-75, and in this report these projections are amended and extended to 1975-76. The purposes of planning are of course to minimize risk and reduce uncertainty. When successful, planning enables problems to be foreseen and dealt with before they reach crisis proportions. Inasmuch as planning enables preparation to be made for change, so it must be acknowledged that plans themselves must be subject to change. Without this feature, plans become a straight-jacket and inhibit response to changing circumstances.

It is not very long since the Province of Ontario and its universities operated strictly from year to year. Obligations were frequently undertaken without any anticipation of their consequences – so-called "foot in the door" budgeting. The annual cycle of determination of Governmental commitment was part of the reason for that pattern, and remains a constraint that cannot be denied. Nevertheless, in the past two years the Committee on University Affairs, with the assistance and co-operation of universities, has been able to prepare recommendations reflecting the five-year term. Capital allocations are still made on an annual basis but are developed within a context of a five-year building program which reflects in turn enrolment projections and related factors. Operating support similarly remains finally determined on a year to year basis, but in its recommendations for fiscal 1970-71 the Committee proposed and the Government accepted the notion of establishing as well an indicated level of support for fiscal 1971-72.

As was argued in last year's Committee report, the primary basis for university planning in Ontario rests on the projection of social demand for higher education. The notion of deterministic manpower planning is attractive but in fact simplistic – as experience in many other jurisdictions has shown. (This is of course not to say that much better manpower information should not be developed.) The third possible basis for planning education is to determine the amount of support to be devoted so as to maximize economic returns. The investment aspects of education are acknowledged, and need to be further studied. Most evidence suggests however that actual resource allocation decisions reflect social (non-economic) benefits that relate to human enrichment and improving the quality of life.

Enrolment projections employed by the Committee on University Affairs reflect the aggregation of the projections of the individual institutions. Up to the present at least, such projections have tended to fit, reasonably well, projections made for the system in total[1], and have in fact been confirmed fairly closely in experience, although not so closely as to avoid important financial consequences (see p. 26). Because of new factors, it may indeed now prove appropriate to endeavour to develop more complete models reflecting various flows and transfers as a basis for more precise projections. But there should be no question that such precision may be only an illusion; education is a social process which must respond to changing needs.

It is of course implicit in all this that the policy of the Government of Ontario, established some years ago, whereby it undertook to provide facilities and opportunities for all qualified young people to pursue higher education who were desirous of doing so, will continue to stand. Whatever reforms and changes may be developed, it is, in the opinion of the Committee on University Affairs, most improbable that direct rationing of places should be introduced. Such a notion is foreign to almost all of our social and political traditions.

The enrolment tabulations which follow (Table I) contain the projections of the institutions, and were not then determined by the Committee on University Affairs. It is clear that actual enrolments in particular faculties or universities may sometimes exceed or fall below these expectations. Subject to the comments that follow, the totals, however, seem to reflect the most probable course of development.

Undergraduate Studies

Undergraduate enrolment trends reflect the demographic factor of a rapidly growing population of university age, compounded with an increasing rate of participation in university study. Taking 19 as the median age of university freshmen, the pool of possible candidates for university admission and the rate of participation can be seen from Table II.

It is also interesting to note the even more rapid rate of increase of part-time attendance. Table III shows the proportion of full-time equivalent undergraduates represented by the part-time enrolment.

The full-time equivalent of part-time enrolment is calculated according to rules established under the operating grants formula and reflects the numbers of courses taken.

[1] *Cicely Watson and Saeed Quazi*, Ontario University and College Enrollment Projections To 1981/82, *Enrollment Projection Series Number 4* (*Toronto: The Ontario Institute for Studies in Education, Department of Educational Planning, 1969*) *57 pp.*

Five year enrolment projections for provincially assisted universities in Ontario

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TABLE 1a

Full time freshman intake[1]

	1970-71	1971-72	1972-73	1973-74	1974-75	1975-76
Brock	866	971	1,078	1,185	1,292	1,489
Carleton	2,750	2,985	3,210	3,435	3,615	3,795
Guelph[2]	1,535	1,580	1,760	1,875	2,000	2,145
Lakehead	931	1,016	1,077	1,139	1,195	1,277
Laurentian	886	933	987	1,164	1,323	1,444
Algoma	200	250	300	400	500	600
Nipissing	100	125	150	175	200	225
McMaster	2,225	2,589	2,918	3,140	3,362	3,658
Ottawa	1,385	1,464	1,480	1,571	1,607	1,749
Queen's	1,830	1,945	1,980	2,005	2,035	2,055
Toronto	3,644	3,430	3,440	3,465	3,500	3,500
Scarborough	655	1,110	1,420	1,390	2,000	2,000
Erindale	860	850	1,050	1,300	1,550	1,550
Trent	685	811	970	1,192	1,304	1,525
Waterloo[2]	3,222	3,196	3,279	3,355	3,379	3,404
Western	3,510	3,564	3,799	3,989	4,134	4,225
Windsor	1,745	1,909	2,091	2,307	2,544	2,732
York	3,025	3,350	3,600	3,850	4,065	4,235
Total	**30,054**	**32,078**	**34,589**	**36,937**	**39,605**	**41,608**

[1] *Based on teaching service performed. Excludes enrolment at, and teaching service performed by, church-related institutions.*
[2] *Fall term, on-campus enrolment.*

TABLE 1b

Total full time undergraduate enrolment[1]
(Including diploma and other non-degree and make-up or qualifying year)

	1970-71	1971-72	1972-73	1973-74	1974-75	1975-6
Brock	2,039	2,390	2,704	3,016	3,323	3,716
Carleton	7,582	8,205	8,980	9,770	10,460	11,165
Guelph[2]	5,912	6,370	6,929	7,467	8,018	8,556
Lakehead	2,694	3,094	3,351	3,547	3,727	3,937
Laurentian	2,034	2,303	2,670	3,040	3,450	3,900
Algoma	200	250	300	400	500	600
Nipissing	100	125	150	175	200	225
McMaster	6,470	6,965	7,850	8,510	9,152	9,953
Ottawa	6,210	6,240	6,559	6,967	7,347	7,757
Queen's	6,644	6,857	7,102	7,366	7,544	7,668
Toronto	15,772	15,910	16,020	16,150	16,300	16,420
Scarborough	1,700	2,200	2,700	3,200	3,700	4,450
Erindale	1,500	1,900	2,300	2,700	3,300	3,700
Trent	1,540	1,825	2,130	2,450	2,750	3,050
Waterloo[2]	8,113	8,639	8,818	9,085	9,239	9,347
Western	10,569	11,377	12,241	12,962	13,596	14,103
Windsor	5,300	5,836	6,363	6,970	7,637	8,302
York	8,725	10,030	11,165	12,175	13,075	14,050
Total	**93,104**	**100,246**	**108,332**	**115,950**	**123,318**	**130,899**

[1] *Based on teaching service performed. Excludes enrolment at, and teaching service performed by church-related institutions.*
[2] *Fall term on-campus enrolment.*

TABLE 1c

Total full time graduate enrolment (fall term)[1]

	1970-71	1971-72	1972-73	1973-74	1974-75	1975-76
Brock	27	49	78	105	132	159
Carleton	725	800	895	980	1,080	1,165
Guelph	642	834	941	1,027	1,123	1,235
Lakehead	55	76	90	108	126	133
Laurentian	23	58	97	107	109	115
Algoma	•	•	•	•	•	•
Nipissing	•	•	•	•	•	•
McMaster	1,220	1,570	1,782	2,002	2,189	2,312
Ottawa	933	1,339	1,542	1,716	1,879	1,999
Queen's	1,060	1,340	1,545	1,650	1,760	1,870
Toronto	4,174	4,460	4,660	4,940	5,160	5,310
Scarborough	•	•	•	•	•	•
Erindale	•	•	•	•	•	•
Trent	10	12	12	12	12	12
Waterloo	1,375	1,399	1,508	1,642	1,734	1,834
Western	1,658	1,821	1,983	2,137	2,291	2,461
Windsor	442	487	562	649	748	862
York	800	1,010	1,210	1,400	1,625	1,800
Total	**13,144**	**15,255**	**16,905**	**18,457**	**19,968**	**21,267**

[1]*Excludes graduate programs in theology at Toronto and Ottawa.*

TABLE 1d

Total full time enrolment[1]

	1970-71	1971-72	1972-73	1973-74	1974-75	1975-76
Brock	2,066	2,439	2,782	3,121	3,455	3,875
Carleton	8,307	9,005	9,875	10,750	11,540	12,330
Guelph[2]	6,554	7,204	7,870	8,494	9,141	9,791
Lakehead	2,749	3,170	3,441	3,655	3,853	4,070
Laurentian	2,057	2,361	2,767	3,147	3,559	4,015
Algoma	200	250	300	400	500	600
Nipissing	100	125	150	175	200	225
McMaster	7,690	8,535	9,632	10,512	11,341	12,265
Ottawa	7,143	7,579	8,101	8,683	9,226	9,756
Queen's	7,704	8,197	8,647	9,016	9,304	9,538
Toronto	19,946	20,370	20,680	21,090	21,460	21,730
Scarborough	1,700	2,200	2,700	3,200	3,700	4,450
Erindale	1,500	1,900	2,300	2,700	3,300	3,700
Trent	1,550	1,837	2,142	2,462	2,762	3,062
Waterloo[2]	9,488	9,768	10,326	10,709	10,973	11,181
Western	12,227	13,198	14,224	15,099	15,887	16,564
Windsor	5,742	6,323	6,925	7,619	8,385	9,164
York	9,525	11,040	12,375	13,575	14,700	15,850
Total	**106,248**	**115,501**	**125,237**	**134,407**	**143,286**	**152,166**

[1]*Based on teaching service performed. Excludes enrolment at, and teaching service performed by, church-related institutions.*
[2]*Fall term on-campus enrolment.*

TABLE 1e

Full time equivalent of part time enrolment[1]
Using formula conversion factors

	1970-71	1971-72	1972-73	1973-74	1974-75	1975-76
Brock	323	382	434	486	537	603
Carleton	1,962	2,185	2,395	2,585	2,745	2,900
Guelph[2]	47	80	90	100	110	120
Lakehead	590	500	515	530	545	560
Laurentian	591	650	683	733	800	825
Algoma	250	294	352	422	506	600
Nipissing	150	100	125	150	175	200
McMaster	1,222	966	1,005	1,044	1,080	1,120
Ottawa	1,581	1,935	2,056	2,184	2,320	2,320
Queen's	1,000	1,000	1,000	1,000	1,000	1,000
Toronto	2,252	2,530	2,780	2,920	3,060	3,220
Scarborough	283	311	342	376	414	456
Erindale	100	167	208	250	283	300
Trent	176	130	140	155	165	180
Waterloo[2]	170	165	172	179	183	187
Western	1,304	1,537	1,657	1,777	1,874	1,994
Windsor	1,696	1,912	2,199	2,530	2,909	3,346
York	2,403	2,830	3,120	3,460	3,720	3,960
Total	**16,100**	**17,674**	**19,273**	**20,881**	**22,426**	**23,891**

[1] *Based on teaching service performed.*
[2] *Fall term on-campus enrolment.*

TABLE 1f

Total full time equivalent enrolment[1]

	1970-71	1971-72	1972-73	1973-74	1974-75	1975-76
Brock	2,389	2,821	3,216	3,607	3,992	4,478
Carleton	10,269	11,190	12,270	13,335	14,285	15,230
Guelph[2]	6,601	7,284	7,960	8,594	9,251	9,911
Lakehead	3,339	3,670	3,956	4,185	4,398	4,630
Laurentian	2,648	3,011	3,450	3,880	4,359	4,840
Algoma	450	544	652	822	1,006	1,200
Nipissing	250	225	275	325	375	425
McMaster	8,912	9,501	10,637	11,556	12,421	13,385
Ottawa	8,724	9,514	10,157	10,867	11,546	12,076
Queen's	8,704	9,197	9,647	10,016	10,304	10,538
Toronto	22,198	22,900	23,460	24,010	24,520	24,950
Scarborough	1,983	2,511	3,042	3,576	4,114	4,906
Erindale	1,600	2,067	2,508	2,950	3,583	4,000
Trent	1,726	1,967	2,282	2,617	2,927	3,242
Waterloo[2]	9,658	9,933	10,498	10,888	11,156	11,368
Western	13,531	14,735	15,881	16,876	17,761	18,558
Windsor	7,438	8,235	9,124	10,149	11,294	12,510
York	11,928	13,870	15,495	17,035	18,420	19,810
Total[3]	**122,348**	**133,175**	**144,510**	**155,288**	**165,712**	**176,057**

[1] *Based on teaching service performed.*
[2] *Fall term on-campus enrolment.*
[3] *Including full time students ineligible for support under the Operating Grants Formula—424 in 1970-71.*

TABLE II

Analysis of university intake population

Year	Freshman Intake[1]	Total est. 19 yr. old population	%
Actual			
1966	20,462	122,700	16.7
1967	22,105	117,600	18.8
1968	26,564	121,600	21.8
1969	29,487	122,700	24.0
Projected			
1970	81,827	126,700	25.1
1971	32,078	131,400	24.4
1972	34,589	137,400	25.2
1973	36,937	144,200	25.6
1974	39,605	147,000	26.9
1975	41,608	156,200	26.6

[1]*Includes enrolment at affiliated institutions, but excludes Waterloo Lutheran University.*

TABLE III

Trends in part time enrolment at Ontario universities and colleges

	Full time undergrad. enrolment	FTE of part time undergrad. enrolment[1]	Total FTE undergrad. enrolment	FTE of part time as % of total FTE enrolment
1967-68	70,185	10,196	80,381	12.7
1968-69	81,878	12,630	94,508	13.4
1969-70	93,208	15,632	108,840	14.4

[1]*Includes winter and summer sessions. FTE is calculated by dividing total course registrations by six.*

In 1969-70, since the average course load is 1.35, the number of people taking such part-time courses[2] is thus approximately four and one-half times the full-time equivalent total shown. It is seen, therefore, for 1969-70 that the total number of part-time students is about 75 per cent of the total number of full-time students.

Graduate Studies

The notions of social demand argued above as the basis for general planning work very well at the undergraduate level, but, regrettably, not so well at the graduate level. This is because of a number of factors. Most critically, the number of graduate students is considerably influenced by the availability of support in the way of fellowships and assistantships. Approximately half of such support is determined primarily by various research agencies, and tends to reflect, most of all, the present relative influence and size of individual disciplines. For various reasons, the relative allocations of research monies and graduate student support as between disciplines are slow to change and there is a tendency for any changes to lag well behind changes in demand in terms of the relative importance of various fields and in terms of the changing market for graduates.

Until recently most jurisdictions in Western Europe and North America were doing all they could to foster the most rapid development possible of graduate and research activities in their universities. Ontario was no exception to this. Starting in 1963 and at the urging of the then Advisory Committee on University Affairs, the Province of Ontario provided funds through the Extended Graduate Program and the Ontario Graduate Fellowship Program to accelerate the growth of graduate faculties. It must be acknowledged that this was particularly significant for Canada and for Ontario, when it is seen that we faced at that time what seemed to be an unprecedented increase in demand for university education with little or no established capacity in Canada for the preparation of teachers for university work. The fact that it has been possible to expand greatly the numbers of graduate students in Ontario universities and at the same time to improve the quality of graduates and research effort represents a remarkable achievement and neither the accomplishment nor the decisions related to it should be forgotten in a flush of concern about what appears at the present time to be a possible oversupply of graduates in some fields of study.

There is of course no room for complacency. But a good deal of care is required in the analysis of the present situation and trends before any action can be taken. First, and perhaps foremost, it has to be acknowledged that one of the most important factors operating in the past two or three years has been a significant shift from a large net emigration of high level manpower from Canada and Ontario to the United States to significant immigration of such people particularly from the U.S.A. Without this shift we would still be woefully short in many areas. Even so, distinct shortages are still evident in many areas. If conditions in the U.S.A. were to change, as a consequence of domestic or international developments, our position in Ontario could change abruptly. In trying to plan for five years (and it must be remembered that the gestation period for a doctorate is, on average, over four years), this remains a major uncertainty.

[2] *Counting is established for winter and summer sessions independently and the total accordingly reflects this fact.*

As a second general factor it has to be acknowledged that the rapid expansion of universities during the '60's led them to compete vigorously for the qualified doctoral graduates they required for the expansion of their teaching faculties. During this period, fewer new doctoral graduates entered government service or industry than entered university faculties. Partly as a result, university Ph.D. programs tended to prepare doctoral candidates almost solely for university work, and people in such programs came to expect almost as a matter of course that they would move into a career in university work. Simultaneously, other possible employers in business and government seemed to manage well enough without significant recruiting at the doctoral level. Moreover, what experience such employers had with doctoral graduates was often not good because of an expectation on the part of some graduates that they would work with full freedom of research enquiry in campus-like surroundings.

The present situation augurs considerable change. The market for new doctoral graduates, in most fields, has softened considerably. Universities will soon be employing only a smaller fraction of the Ph.D.'s produced. There is, of course, no shortage of problems requiring applied research and development effort in Canadian industry, commerce and government. The Fifth Annual Review of the Economic Council of Canada[3] identifies an overwhelming need for applied research relating to poverty, economic development and welfare in this country.

Canada, through the Federal Government and its various agencies, is now in the course of a major review of national science policy. It seems reasonable to anticipate that the results of this will become evident in government policy before the end of 1971. If, as seems fairly probable, Canada should determine to take a more aggressive line in research and development with respect to urban development, transportation, housing, the North and so forth, we could possibly find ourselves again endeavouring to force the expansion of graduate enrolment.

In the meantime, however, some careful and deliberate review is required. The Committee on University Affairs first became concerned with the problems of planning the development of graduate schools in 1964. The report and recommendations of the Spinks Committee[4] led to the inauguration of the appraisal system, and in turn to the requirement of a favourable appraisal before enrolment in new graduate programs could be counted for formula grant purposes. It has been thought that the appraisal process, working in hand with the exigencies of the formula grant system, would ensure both that necessary academic quality would be maintained and that graduate programs would be introduced only where enrolment growth to viable levels was readily foreseeable. On the whole this process seems to have worked reasonably well. The rate of introduction of new graduate programs has certainly been greatly curtailed since the introduction of these requirements in 1967.

TABLE IV

Development of new graduate programs

Year	Number of new graduate programs	
	Master's	Doctoral
Prior to 1967	215	304
1967	8	4
1968	4	5
1969	18	13

Notwithstanding this, in the fall of 1968 when the Committee on University Affairs first saw five-year university projections of graduate enrolment, it advised that these seemed to exceed reasonable needs and requirements and that considerable caution should be exercised, particularly in the recruitment of graduate students from abroad. At the same time, the Committee on University Affairs requested the Ontario Council on Graduate Studies, which represents the graduate schools of the universities of Ontario, to undertake certain studies relating to the composition of the graduate student body and to the destinations of graduate students completing courses of study.

The international movement of graduate students still reflects, perhaps, the tradition of the medieval scholar who moved from country to country to find the most appropriate teacher. In most countries today, outstanding graduate students are urged to travel to broaden perspectives and to work with leading scholars in chosen fields of study. For Canada particularly, this was pretty much a one-way street until recently. Most Canadians choosing to do graduate study did it in the U.S.A. or in Britain (at the expense of taxpayers in those countries). Some returned. Until the mid-60's very few foreign graduate students came to Canada. But since that time the situation has altered considerably. It must be regarded as appropriate that we should reciprocate for the benefits Canadians have enjoyed for many years in other jurisdictions. And, selfishly, it was acknowledged that the graduate school was a good device for encouraging

[3] *Fifth Annual Review, Economic Council of Canada*, The Challenge of Growth and Change, *September, 1968.*

[4] *Report of the Commission to Study the Development of Graduate Programmes in Ontario Universities, November, 1966. Now out of print.*

the immigration of high level manpower. But concern arose at the thought that we might be providing graduate education at high cost for students from third world countries, not to return home, or to stay in Canada, but to move, perhaps, to the U.S.A. In an attempt to sort out some of these factors, the Ontario Council on Graduate Studies has undertaken two surveys of graduate student enrolment, and has also undertaken a five-year study of the origins of graduate students and their destinations after completing higher degrees. The results are on the whole quite reassuring.[5] Some salient features are noted in Table V.[6] It will be seen that the proportion of Canadians and landed immigrants is large and growing. A remarkably high proportion of those concluding doctoral work in Ontario have stayed to work in Ontario or other parts of Canada.

The Committee on University Affairs is naturally still concerned with the planning of future graduate enrolment in the Ontario universities. While some change in the character of graduate programs may be needed, it seems improbable that in total too many people are now graduating with higher degrees. But the further growth of graduate enrolment projected in Table I might indeed constitute overexpansion.

In the fall of 1970 the Committee on University Affairs intends to discuss with each university its plans for the development of graduate studies. From these discussions it may be possible to determine whether the projections submitted by the universities in the fall of 1969 were indeed too large. In general, it seems reasonable to anticipate some abatement in the rate of growth in graduate enrolment in some already popular disciplines. Some efforts intended to modify present programs to suit graduates for more general high-level problem solving and analytical activities in society are already evident. More difficult, but perhaps necessary, may be the termination of some present programs for which a significant role may not be foreseeable.

To conclude this discussion of planning, the following sections refer to current general considerations relating to university programs in education, engineering and the health sciences which have been and continue to be of special concern to the Committee on University Affairs.

Education

The MacLeod Committee on the training of elementary school teachers[7] recommended that educational requirements for primary school teachers should be raised to degree level. Shortly thereafter the Minister of Education announced that teachers' colleges would become integrated with universities to provide for the implementation of the MacLeod Committee recommendations. There followed a period of negotiation between the Department of Education and the Committee of Presidents of Universities of Ontario concerning the general terms under which transfers would take place, and particularly the conditions under which the academic staff of the teachers' colleges would become members of the teaching faculties of the universities. After

[5] *Taken from a working paper,* Ph.D. Survey 1964-1969–Present Employment of Ontario Ph.D.s, *submitted to the Committee of Presidents of Universities of Ontario by Dean M. A. Preston, to be consolidated with a report of present Ph.D. enrolment in Ontario universities.*

[6] Survey of Citizenship of Graduate Students Enrolled in Master's and Doctoral Degree Programmes at Ontario Universities in 1969-70 (With Comparative Statistics for 1968-69), *prepared for the Ontario Council on Graduate Studies by the Research Division of the Committee of Presidents of Universities of Ontario, revised May 11, 1970.*

[7] *Report of the Minister's Committee on the Training of Elementary School Teachers. (Toronto: Ontario Department of Education, 1966).*

TABLE V

Citizenship of graduate students in Ontario universities

	Full-time				Part-time				Total			
	1968-69		1969-70		1968-69		1969-70		1968-69		1969-70	
	Number	Percent of total	Number	Percent of total	Number	Percent of total	Number	Percent of total	Number	Percent of total	Number	Percent of total
Canadian	6,279	58.9	7,561	62.4	3,668	83.8	4,509	82.6	9,947	66.2	12,070	68.7
Landed Immigrant	1,645	15.4	2,454	20.3	366	8.4	554	10.2	2,011	13.4	3,008	17.1
Others	2,737	25.6	2,102	17.4	341	7.9	393	7.3	3,078	20.4	2,495	14.2
Total[1]	**10,661**	**100**	**12,117**	**100**	**4,375**	**100**	**5,456**	**100**	**15,036**	**100**	**17,573**	**100**

[1] *Discrepancy in percentage totals due to rounding.*

agreement was reached on general principles, negotiations were then conducted between the Department of Education and various universities with a view to transferring individual teachers' colleges into adjacent universities. The first transfer to be completed was that of the Lakehead Teachers' College into Lakehead University in 1969.

For the potential benefits of offering teacher training and education in the universities to be fully realized, it was clear to all concerned that, following transfer, the new faculties of education should be fully integrated in the same manner as other faculties such as engineering, law and medicine. One of the most important aspects of this integration is, of course, that the grants for the education and training of future teachers should come under the formula system of grants administered by the Department of University Affairs. This notion has been accepted, and has led the Committee on University Affairs to become directly concerned with the recommendation of levels of support for programs in education. Current aspects of this question are discussed in detail in the section of this report dealing with operating support.

In the same general vein, arrangements were concluded in 1969 for the transfer to the estimates of the Department of University Affairs sums that had heretofore been provided in the estimates of the Department of Education for the support of the colleges of education at Queen's University, the University of Toronto and The University of Western Ontario. Thus, the Committee on University Affairs became concerned also in 1969-70 with the preparation of recommendations for support of these colleges[8].

As will be evident from the above account, the integration of teacher education and preparation into the universities seems to be proceeding relatively well. Difficult problems may arise however before the process is completed. The Department of Education has indicated its preference for the establishment of faculties of education in universities. To be academically effective and economically viable, a faculty of education must have a certain minimum size. It seems likely that the minimum size will indeed be such that the numbers of faculties of education required in the Province will be less than the numbers of teachers' colleges that have operated in the past.

As a basis for the necessary planning, the Committee on University Affairs has itself undertaken or requested studies to determine the factors related to the minimum effective size of a faculty of education, and the probable annual flow required for qualified teachers in coming years. It is hoped that from this work it will be possible to have a clear indication of the Province's needs, the number and size of faculties of education, all related to the provision of operating support through the operating grants formula.

Engineering

In the 1967 report of the Committee on University Affairs it was acknowledged that the great concern for technical manpower that arose in the post-sputnik years of the late fifties led six universities in Ontario (Carleton, McMaster, Ottawa, Waterloo, Western, Windsor) to inaugurate new full undergraduate programs in engineering to add to those long established at Queen's and Toronto. With these eight, Guelph offers a program in agricultural engineering. More recently, Lakehead and Laurentian Universities have introduced engineering programs to second year level, and other universities have expressed interest in inaugurating programs in applied science and engineering.

Faced with requests for recommendations to support such new programs, the Committee on University Affairs had questioned whether the eight existing programs might already be more than Ontario needs at the present time. Partly as a result of this stimulus, the Committee of Deans of Engineering and the Committee of Presidents of Universities of Ontario determined to sponsor an intensive study of engineering education in the Province. Terms of reference were prepared in 1969, and Dr. Philip A. Lapp was appointed to direct the study in the fall of 1969. The report of the findings and conclusions of the study are expected to be published before the end of 1970.

The Lapp study will undoubtedly be important not only for the future planning of development in engineering education in the Province, but also will likely serve as a model for similar studies which may be undertaken in other subject areas.

The more general importance of the Lapp study relates to the issue of university autonomy. Undoubtedly the most effective way to safeguard university autonomy is in fact to be ahead of reasonable criticism. The best route to this lies through the development of constructively critical, objectively credible analysis, leading in turn to university action. In this process, the most effective contribution of the Committee on University Affairs may lie in the posing of searching questions.

Health Sciences

Since the completion of the planning that led in 1964 to the decision to inaugurate a new Faculty of Medicine at McMaster University and to enlarge the other schools at Toronto, Ottawa, Queen's and Western, the Committee on University Affairs has not been closely concerned with planning in the Health Sciences. Most general planning has been

[8] *Details of support for 1969-70 are contained in Table VIII on page 24.*

done under the surveillance of the Senior Co-ordinating Committee for Health Sciences, which is composed of representatives of the Department of University Affairs,[9] the Department of Health and the Ontario Hospital Services Commission.

The Senior Co-ordinating Committee is now putting together outlines of the detailed plans for each university health science centre development, including projections of flows of graduates at various levels. The Committee on University Affairs will be interested in relating this to general plans for university development. In particular the Committee on University Affairs sees the need to integrate university space related to the Health Sciences with the capital grants formula. This step is required not only because of the problem of service teaching, which makes the notion of separate resources ineffective, but also simply to ensure that standards of space allocation and usage in the health sciences facilities in the universities relate reasonably to the standards established for the other parts of the university.

The question of the possible inauguration of a sixth medical school in Ontario has recently been raised by several universities, and in the planning relating to capital allocations from the Ontario Health Resources Development Fund. It is the opinion of the Committee on University Affairs that much careful study will be needed before any such step is undertaken, involving as it will a capital expenditure of the best part of $100 million. The Committee is further of the opinion that such study may possibly show that no new school, as presently conceived, will in fact be needed.

There are two principal reasons for this opinion. First, the recently developed plans of the five present medical schools in the Province show the development of physical facilities and human resources in each school to be sufficient to provide for quite large numbers of people doing postgraduate work in medical specialty training and for large numbers of people doing work for postgraduate research degrees. It has been suggested that the numbers of people in these two groups may *exceed* the numbers of students working towards the first professional degree. Just as in other faculties there has been a tendency to plan for rather too large numbers of postgraduate students, so it may be that in medicine this is also the case, and such resources may in fact be readily transferred to the use of expanded undergraduate classes. Any possible additional capital funds may prove far more beneficial in expanding existing schools than in initiating a new school.

The second reason for caution in considering a sixth medical school in Ontario is that current studies concerning the delivery of health care seem to be leading to the definition of requirements for more paramedical personnel – professionals of many kinds – to provide the highest level of healing skills and art to all people in need of health care. The required manpower mix for the future may shift and greater priority and planning needs may be attached to the education and training of paramedical personnel.

[9] *See the* Report of the Minister of University Affairs, 1968-69, *p. 23.*

The Formula

The Ontario operating grants formula was used for the third time in 1969-70. Experience seems to confirm that all of the intended objectives of the formula system and policy have been realized. Certain problems have arisen with the formula, some of which were foreseeable. It remains the opinion of the Committee on University Affairs that, while certainly not perfect, the formula policy undoubtedly provides the best means available for the distribution of operating support to universities.

From the point of view of the universities, the formula was intended to provide equitable support and to provide a basis for preserving institutional control over resource allocation. The formula also was intended to provide an incentive for efficiency and good management, inasmuch as any benefits resulting therefrom would not lead to a corresponding reduction in support for the institution in question. It was also intended, notwithstanding the limitations of the Government's annual budgeting cycle, that the formula could lead to effective long-term planning on a constant dollar value. A good deal of evidence has now accumulated tending to confirm these notions.

The Committee on University Affairs is, however, concerned with two aspects of university management that relate directly to the formula. First, competition for resources within individual institutions seems to be leading some to apply the formula for internal budgeting. The formula was not intended to be employed in this fashion. While university management certainly requires the most careful scrutiny of unit costs, institutional priorities must take precedence over simple numbers in the final budgeting process. The Committee on University Affairs also feels that the universities have not seized as fully as possible upon available opportunities for improvements in cost effectiveness. The tendency to course proliferation is still strong; there has been some noticeable tendency to put aggrandizement in such areas as computer facilities ahead of economy; and library management and library services still do not reflect the understandings and possible improvements in service which probably could come fairly readily from operational analysis.

From the point of view of government, the formula was intended to provide a basis for control of total expenditure as related to function (the education of students) without the concomitant scrutiny and control of individual elements of expenditures. These benefits seem certainly to have been realized. The Committee on University Affairs notes that while the cost of supporting university education continues to rise very rapidly, the largest part of the increase is, in fact, associated with the increasing numbers of university students. Rates of increase of *unit costs* of university education in Ontario are considerably below rates of increase of unit costs for other social services such as primary and secondary education, and health care.

This would seem to suggest that the formula system provides more effective general control than traditional budgeting systems which may involve scrutiny and even control of line item expenditures, and so offer the illusion of control, but in fact lead only to control of some components, with the total remaining effectively uncontrolled.

Formula Multiplier (Basic Income Unit)

Table VI shows the value of the basic income unit along with information concerning numbers of students and total grants over a five-year span.

For 1969-70, the value of the formula multiplier, the basic income unit, was $1,556. This represented a 5.5 per cent increase from the value of $1,450 used in 1968-69, and the integration of the previously separate computer grants, worth $26 per B.I.U.

After careful review and much debate, and mindful of probable trends in inflation in the Canadian economy, the Committee on University Affairs recommended an increment of just over 11 per cent for the next two years, to be divided 6 per cent for 1970-71, and 5 per cent for 1971-72, to values of $1,650 and $1,730 respectively.

In view of the relatively high rates of inflation that have prevailed recently it can be seen that the increments proposed provide very little allowance for improvement. This reflects the conviction of the Committee on University Affairs that present absolute levels of support are reasonable and do not need special correction.

Extra-Formula Grants

It was recounted in the Report of the Committee on University Affairs for 1968-69 how extra-formula grants had generally been provided on a diminishing basis, to be phased out as certain new programs and institutions became economically viable.

In 1969-70, further study was given to the emergence of the younger universities. The Committee of Presidents proposed a pattern of support leading to emergence with a weighted enrolment of 4,500. The final recommendation of the Committee on University Affairs was for a general pattern of emergence at a scale of 4,000 units, with Scarborough and Erindale Colleges emerging at a scale of 3,000. This reflects the programs planned for these two institutions and their relationship to the University of Toronto which allows

TABLE VI

Summary of operating grants for the provincially assisted universities

Year	Total FTE enrolment	Total weighted enrolment (in BIU's)	BIU value	Ordinary formula income (including computer grants)	Less formula fees	Extra-formula grants	Programs in education[1]	Total Operating grants
1967-68	80,489	137,533	$1,320	$181,544,088	$37,893,458	$17,785,362	•	$161,335,992
1968-69	97,085	163,901	$1,450	$241,303,064	$45,676,449	$19,473,278	•	$215,099,893
1969-70	112,390	192,966	$1,556	$300,438,592	$52,638,523	$13,946,212	$11,353,277	$273,099,558
1970-71 (projected)	124,264	214,651	$1,650	$354,174,645	$58,920,571	$12,157,061	$11,597,500	$319,008,635
1971-72 (projected)	135,393	233,416	$1,730	$403,809,680	$64,499,844	$9,750,000	$13,314,000	$362,373,836

[1]*In 1967-68 and 1968-69 programs in education were financed through the Ontario Department of Education.*

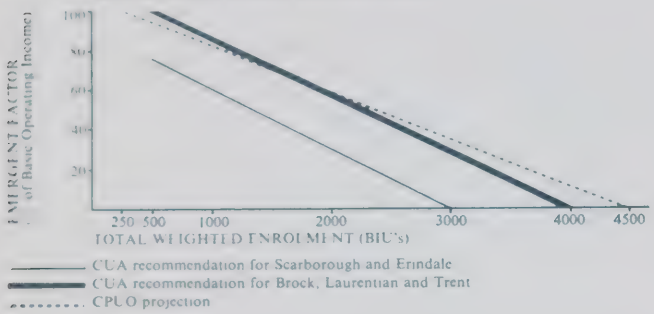
TABLE VII

Extra-formula grants

	1967-68	1968-69	1969-70	1970-71 (projected)	1971-72 (projected)
Total formula grants	$143,650,630	$191,980,001	$242,600,069	$295,254,074	$353,093,535
Extra-formula grants for emerging universities	8,195,000	8,677,828	7,822,602	7,257,361	4,305,000
Extra-formula grants for major new programs	5,139,000	7,225,000	3,233,920	2,230,000	1,250,000
Extra-formula grants for bilingualism	1,235,000	1,609,963[3]	1,853,976	1,890,000	2,182,000
Other special extra-formula grants	3,116,362	1,960,487	1,035,714	779,900	750,000
Total extra-formula grants	**17,685,362**	**19,473,278**	**13,946,212**	**12,157,061**	**8,487,000**
Total extra-formula grants as percentage of total formula grants	12.3	10.1	5.7	4.1	2.4

them to become effectively viable at a smaller scale than the other new institutions. The general character of the various proposals is shown in Figure 1.

Figure 1 Patterns for emergence
(showing indicated emergent factors for 1970-71)



The pattern of extra-formula grants recommended for the higher costs of bilingual programs was reviewed in 1969-70. Since the inauguration of the formula in 1967 an allowance of seven per cent had been used. In view of the scale of operation of the University of Ottawa, the Committee recommended that from 1970-71 the extra-formula allowance for bilingualism in that university should be fixed at $1,500,000, while the allowance for Laurentian University should continue to be determined as seven per cent of its ordinary formula income. This reflected the view of the Committee on University Affairs that the University of Ottawa was approaching viability with respect to both its anglophone and francophone programs.

As the emerging universities achieve viable scale and other major new programs requiring special support become viable, the absolute value as well as the proportion of extra-formula support has been declining rapidly, as shown in Table VII.

Education

As noted in the section of this report dealing with planning, the change in patterns of financing university programs in education in 1969 led the Committee on University Affairs to become concerned with recommending grant levels for such programs. The response of the Committee to this need was to inaugurate, on the one hand, studies aimed at providing for education within the formula system, and on the other hand, to establish a review procedure for grants for programs in education for 1970-71. A special subcommittee was established and hearings arranged for the five universities with programs in education (Lakehead, Ottawa, Queen's, Western and Toronto). The resulting recommendations for grants in 1970-71 are set out in Table VIII. The report of the general study on financing teacher education programs is expected to be published early in 1971.

TABLE VIII
Grants for colleges and faculties of education 1970-71

University	Regular Session	Summer Session	Total
Lakehead	506,000	51,000	557,000
Ottawa	2,088,600	20,000	2,108,600
Queens	791,900	215,000	1,006,900
Toronto	4,006,000	632,000	4,638,000[1]
Western	2,281,000	162,000	2,443,000
Total	**9,673,500**	**1,080,000**	**10,753,500**

[1] *The University of Toronto received a special grant of $400,000 to renovate and extend certain capital facilities.*

Formula Revisions

Revisions to the operating formula are the responsibility of the Joint Subcommittee on Finance, described on page 9. The subcommittee meets regularly and has developed a formalized procedure for the collection of relevant information, and for the dissemination of the results of its deliberations. Minutes of the subcommittee's meetings are circulated to the universities and reference copies are available in university libraries. It is, accordingly, unnecessary to describe in complete detail the work of the subcommittee in the past year. What follows is a summary of the main problems addressed, and some of the factors that govern the work of the subcommittee.

The subcommittee has endeavoured to maintain the original concept of the formula as a relatively simple device to provide equitable support against objective criteria reflecting enrolments and general notions of relative average program costs. The subcommittee is particularly concerned that the formula should not "drive" university decision-making, but rather should more simply respond in some reasonable fashion to reality.

Efficiency of academic units, and the sensitivity of unit costs to the scale of academic operations are concerns of the Joint Subcommittee, and of the Committee on University Affairs. It is the view of the Committee on University Affairs that formula weights should in the end relate to what it deems to be reasonable mixes of the primary factors

that determine university costs: class sizes, teaching loads, average salaries, and overhead allowances.

When the formula was introduced in 1967 it was anticipated that a major cost study already in hand under the auspices of the Association of Universities and Colleges of Canada would be completed by 1969 and that, accordingly, within three years of the inauguration of the Ontario grants formula, evidence would be available on which revisions could be based. Regrettably, the AUCC cost study has been delayed and it seems now unlikely to provide a sufficient weight of evidence to lead to changes in the present formula policy as used in Ontario.

Since the formula was introduced in 1967, the Committee on University Affairs has heard arguments in favour of increasing, relatively, weighting numbers in virtually every enrolment category. It has been suggested that this experience probably confirms the reasonableness of the original scale of weights. Undoubtedly more money could be well spent on any area of activity. But until some quite compelling evidence becomes available, the Committee on University Affairs is hesitant about tinkering with the weights established under the formula policy for individual programs.

Notwithstanding this, certain changes have been made, as outlined in previous reports of the Committee on University Affairs, and some others, such as a change in the counting of full-time equivalent enrolment for part-time students, may be required.

The original weights were, of course, fixed on the basis of the opinions of a joint committee, reflecting their experience and knowledge of relative costs along with some rudimentary cost data then available. The weights were tested against grants which had been made through the period 1965 to 1967 to ensure that they would not lead to distortions in patterns which had seemed generally to be reasonable and just. Obviously, that same procedure cannot be repeated. If the weights are to be changed, new evidence must become available. It now seems likely that this will come in two forms. First, actual cost data for various programs need to be developed, and the Joint Subcommittee plans to promote studies of this sort. The Lapp study of Engineering may well give some results of interest and value for that area. But cost accounting in higher education can never be absolutely precise; many critical assumptions must be made arbitrarily for the apportioning of certain costs, notably for service teaching, overhead and library costs, and even for the distribution of the costs of faculty effort. It seems unlikely then that a simple cost accounting approach will necessarily lead conclusively to a satisfactory basis for a new set of weights. Moreover, the Committee on University Affairs is unlikely simply to accept historic evidence of costs for determination of weights without regarding the implications and priorities implicit in such relative weights.

For this reason, it seems to be necessary to complement any such evidence with econometric modelling studies which would be designed to show the relationships between class sizes, teaching loads, salary scales, research program activity, library and computer services, overhead costs and average levels of expenditure per student, by program type.

From work of this sort, it should become possible to revise the formula and its weights.

Graduate Student Counting

Following the determination in 1968 to commence counting graduate students on a trimester basis in 1969-70, studies were undertaken with a view to establishing minimum and maximum entitlements for formula grants for graduate students. The notion of setting such limits reflects a number of factors, including the variable length of graduate programs, and the need to relate support in some reasonable fashion to total academic accomplishment rather than simply to the length of time taken.

Following extensive study by the Joint Subcommittee on Finance and discussion with the Ontario Council on Graduate Studies, the following set of minimum and maximum entitlements was agreed upon and recommended by the Committee on University Affairs in October, 1969, for introduction in 1969-70. The results of this scheme seem likely to be beneficial both to the universities and to Government. Total liabilities are limited, and minimum levels are set high enough to avoid penalty through the semester counting procedure adopted in 1969.

TABLE IX

Minimum and maximum B.I.U. counts for graduate students

Formula Category	Minimum	Maximum
Category 6. (weight 3.0) M.A. (and first year Ph.D. direct from Baccalaureate)	3.0	6.0
Category 7. (weight 4.0) M.Sc.	4.0	8.0
Category 8. (weight 6.0) All Ph.D. (except first year Ph.D. direct from Baccalaureate)	21.0[1]	27.0[1]

[1] *Cumulative, to include earned entitlement carried forward from Category 6 or Category 7 status as case may be.*

New Program at the University of Toronto

As a result of the recommendations of the Macpherson Committee on Studies in the Faculty of Arts and Science of the University of Toronto[1], the University of Toronto moved in 1968 and 1969 to a restructuring of programs in Arts and Science which had the effect of blurring the previously precisely marked distinction between the general course and honours courses. As a direct result, it became impossible to distinguish between the different classes of students for formula purposes. The Committee on University Affairs acknowledged that such academic reform should not be inhibited by the structure of the formula, and recommended that the University of Toronto should receive support under the formula according to a weight that reflected the previous average effective weight for students in honours and general courses combined. This turned out to be 1.20.

With other universities changing and a further blurring of the distinctions between honours and general and arts and science courses, the Joint Subcommittee on Finance attempted to find a new average weighting to apply to all such programs in all universities that would permit each institution to maintain the previous structure or to move to new structures that seemed academically appropriate. After very extensive work, including computer simulation of many alternative patterns of weighting, it proved to be impossible to find a new structure of weights that did not produce distortions in grant allocations that were beyond an acceptable level. It thus seems unlikely that any several formula revisions to reflect changing patterns of arts and science programs can be made before the more comprehensive studies outlined in the section of this report dealing with formula revisions have been completed.

Formula Stabilization

As noted earlier, one of the most vexing problems associated with the formula, from the point of view of Government, has been the experience of enrolment overruns. Because of the structure of the formula, these have led to extraordinary obligations for grant payments after the Provincial Estimates have been fixed. The deviation from estimate (6.3 per cent in 1968-69 and 3.4 per cent in 1969-70), has a consequence in dollars which is significant ($12.5 million in 1968-69 and $9.8 million in 1969-70). It is quite clear that the overruns are a direct result of the policy accepted by the Government, and by the universities, of an effective "open door" to all qualified applicants. In this sense these "excesses" should be welcomed. It would be a direct contradiction of general Government policy to attempt to address this problem by simply limiting enrolment in a given year to projected levels.

If this were all there were to the problem, it might reasonably be argued that these unexpected deviations were a necessary and unavoidable part of the decision to keep university doors open and, noting that such variations are not particularly large as compared with variations that occur in other areas of social service, leave the policy untouched. But in 1969 it became clear to the Committee on University Affairs that there was another dimension to the problem. When a university found itself admitting rather more students than expected in September, it generally was unable to provide immediately for a corresponding increment in full-time appointments and other services; that is, it was unable to spend the money to provide, on average, for the maintenance of the intended quality of education. This slight reduction in average quality is, of course, less significant than would be the loss in turning away these unexpected students. But the result is that the universities that have accepted unexpectedly large student intakes, for which they had not budgeted or made full preparation, have then found themselves with substantial surpluses at the close of the fiscal year.

At first sight, it would seem to be a simple matter to remove uncertainty in forecasting student numbers and financial commitments while not terminating the open-door policy. It quickly became evident, however, to the Committee on University Affairs and to the Joint Subcommittee on Finance that no simple policy amendment could be developed that would have the desired results without unattractive side-effects. Numbers of alternatives were proposed and analyzed and all were found to be unsatisfactory either because, with their operation, prudent university management would lead to some small margin of over or under-projection of enrolment, or that there would be a tendency to restrict enrolments to projected levels. The details of the various proposals considered and the analyses undertaken may be examined in the minutes of the Subcommittee on Finance.

The final approach suggested, while not perfect, seems possibly to provide for a reasonable approach to the problem. This is to formalize the process of projecting enrolments through the Joint Finance Subcommittee, so as to minimize uncertainty in projections, and then to make provision in any given fiscal year for a one per cent overrun only, in the total

[1] Undergraduate instruction in arts and science; Report of the Presidential Advisory Committee on Undergraduate Instruction in the Faculty of Arts and Science, University of Toronto. *University of Toronto Press, 1967. (C. B. Macpherson, Chairman).*

of university grants, should enrolments exceed expectations. Residual obligations would be paid to individual institutions in the following year, and their total value would be a first charge against the total of university grants for that year. It can be seen that this preserves open access while at the same time tending to limit liability of Provincial resources.

At the time of this writing, some concerns still remain regarding the problem and still further review may be needed.

Computer Grants

As recounted in last year's report, the Committee on University Affairs determined in 1968-69 to terminate capital grants and operating grants earmarked for the support of computing services in favour of the incorporation of support for computing services in the basic income unit. Accordingly, the basic income unit, which had originally been fixed at $1,530 in 1969-70, with a supplementary $26 for computing, in effect represented a total simply of $1,556.

Although this integration of support for computing in general university grants was viewed with apprehension by numbers of university people who were concerned that computing services might not then be adequately maintained, this integrated pattern of support generally seems to have been beneficial. The level and quality of computing services seem not to have declined and, more particularly, there is clearer evidence now of the need for, and a tendency towards, more careful management of this not-inexpensive resource. The universities' Computer Co-ordination Group, established as a result of the agreement between the Committee on University Affairs and the Committee of Presidents on the change in grant structure for computing, has been formed under the direction of Mr. Maurice P. Brown and has already provided some important services to the universities. It has recommended, and the Committee on University Affairs supports, a full costing procedure to identify clearly the total cost of computing services, including depreciation of hardware. Such costing is to be associated with internal charging policies which recover, in the internal budgets of the various operating branches of the university, the full cost of the services provided. The universities are moving to respond to this stimulus, and it seems clear that the result in general will be to further the rationalization of computing services.

The Committee on University Affairs welcomed the announcement by the National Research Council of Canada in March, 1970, to the effect that it would terminate its present program of direct grants to university computing centres following fiscal 1970-71 in favour of supporting the costs of computing for research through the ordinary direct research grants. This policy change by NRC is clearly compatible with the new policy inaugurated in Ontario in 1969-70.

Analysis

Reference should be made to the companion *Report of the Minister of University Affairs of Ontario 1969-70* for details of enrolment and grant support to individual institutions. Some salient features of particular interest can be identified that relate to general planning and the concerns of the Committee on University Affairs.

Table X shows the distributions of enrolment and grants associated with the principal formula categories.

The relatively large proportion of total support that is a function of graduate enrolment is to be noted. If, as suggested on page 18, graduate enrolments do not increase at the same rate in the 70's as they have done during the 60's, some significant change will be seen in a few years in the above distributions.

The question of year-round use of university facilities is perennial. Without going into all the details surrounding this often controversial issue, it should be noted on the one hand that university enrolment and levels of activity during the summer semester are already at a fairly high level in Ontario, and on the other hand that there are many factors quite outside the control of the universities–most particularly the social habits of young people and family customs–that have tended to prevent a general development of year-round study. The unfortunate experiences of the University of Pittsburgh and the Florida state system in trying to inaugurate year-round studies a few years ago should not be forgotten. At the Universities of Guelph and Waterloo, of course, ordinary undergraduate programs have been conducted with notable success on a year-round basis (the Guelph trimester operation and the Waterloo co-operative plan). The formula system provides proportionate grants for such operations, and certainly offers no impediment to a further expansion of year-round activity. At the graduate level, all grants are now on a semester basis and, as a result, there has been a marked expansion of summer semester activity. Table XI shows the proportion of summer work now, as related to ordinary fall and winter work.

Student Support

In 1969-70 for the first time, and reflecting the program budgeting directive of the Treasury Board, the Committee on University Affairs was asked to consider the total of all programs relating to university support–including student support–as a single entity.

TABLE X

Operating grant allocations according to formula categories for fiscal year 1969-70.

Category	Formula Weight	Per Full-Time Equivalent Student: Formula Income (B.O.I.)	Formula Fee[2]	Grant	Total F.T.E. enrolment[3]	Total B.I.U.'s[4]	Basic Operating Income[5]	Percentage Distribution of B.O.I.
1 General Arts and Science,[1] Journalism, Social Work	1.0	1,530	485	1,045	59,484	62,131.8	$95,061,654	31.2
2 Honours Arts, Commerce Law, etc.	1.5	2,295	480	1,815	18,078	27,117.2	41,489,316	13.7
3 Undergraduate professional programs. Engineering, Agriculture, etc.	2.0	3,060	510	2,550	20,948	41,895.8	64,100,574	21.0
4 Medicine, Dentistry and Veterinary Medicine	5.0	7,650	650	7,000	2,480	12,400.8	18,973,224	6.2
5 Master's level—Professional programs without thesis requirements.	2.0	3,060	460	2,600	2,045	4,090.0	6,257,700	2.1
6 Master's level—Humanities and Social Sciences	3.0	4,590	400	4,190	4,846	14,539.0	22,244,670	7.3
7 Master's level—Applied Sciences	4.0	6,120	400	5,720	5,898	23,592.0	36,095,760	11.9
8 All Ph.D. (except 1st year Ph.D. direct from Baccalaureate)	6.0	9,180	400	8,780	1,428	8,568.0	13,109,040	4.3
Sub-total					115,207	194,334.6	297,331,938	97.7
Medical interns & residents	2.5	3,825	—	3,825	1,737	4,342.5	6,644,025	2.2
Theology graduates @ 50%	1.0	1,530	600	930	129	129.2	197,676	.1
Total					**117,073**[6]	**198,806.3**[7]	**304,173,639**	**100.0**

[1] *Category 1 includes Arts & Science at University of Toronto weighted at 1.20.*
[2] *Formula Fees have been calculated as the weighted average for that category.*
[3] *F.T.E. enrolment derived by dividing B.I.U.'s by the formula weight for that category. In categories 6, 7 and 8, F.T.E. enrolment is calculated on a year-round basis.*
[4] *Includes teaching done by church related colleges at 50%.*
[5] *Number of B.I.U.'s multiplied by Unit value yields Basis Operating Income.*
[6] *F.T.E. enrolment at church related institutions considered at 50%.*
[7] *Excluding 441 B.I.U.'s for minimum entitlements for graduates.*

TABLE XI

Year round operations in universities 1969-70[1]

	Fall Semester 1969[2]	Winter Semester 1970	Spring/ Summer Semester 1970	Total B.I.U.'s[3]
Total F.T.E. Enrolment	121,075	118,182	12,757	
Total B.I.U.'s	93,909.1	92,906.7	17,008.7	203,824.5[4]
Percentage Distribution of B.I.U.'s	46.08	45.58	8.34	
Spring/Summer B.I.U.'s as % of average Fall-Winter		45.83	18.20	

[1] *As measured by Basic Income Units under the operating grants formula.*
[2] *Including graduate and undergraduate summer school enrolments.*
[3] *B.I.U.'s for church-related institutions at 100%.*
[4] *Excluding 441 B.I.U.'s for minimum entitlements for graduate students.*

Up to this point, the Committee on University Affairs had been interested in programs of student assistance, and had on occasion made recommendations concerning policy development. In the main, however, the Ontario Student Awards Program was monitored by the Ontario Committee on Student Awards, on which the Committee on University Affairs was directly represented.

The Canada Student Loans Plan, introduced in 1964-65, and subsequently integrated with the Ontario Student Awards Program, which has been in operation since the 1966-67 academic year, has undoubtedly been effective in improving accessibility to higher education for students of modest means. Some evidence of this is contained in Table XII.

In view of the rapidly increasing costs of the Ontario Student Awards Program ($29.4 million in 1969-70 and an estimated $33.5 million in 1970-71) and the awareness that significant benefits accrue to the individual as a result of university study, proposals for restructuring assistance programs have been considered which would have the effect of reducing the bursary portion and increasing the loan portion of the award, making the repayment of the loan portion contingent upon future earnings. Through this, graduates would be excused repayment of loans if their income fell

TABLE XII

Comparison of percentage distribution of family income of Ontario post-secondary student population with the percentage distribution of Ontario families by income

Population Group	Income in thousands of dollars					
	<3	3-5	5-6	6-7	7-10	10+
Percentage of Ontario post-secondary student to population[1]	6.9	10.6	9.3	11.8	26.4	35
Percentage of Ontario families by income groups[2]	8.1	10.4	8.8	11	29.8	31.8

[1] *Combined Parental Income in Relation to Choice of Study Program of PSSP (Post-Secondary Student Population Survey 1968-69), Dominion Bureau of Statistics, March 1970.*
[2] *Estimated Distribution of Families and Individuals by Income Ontario 1969 (Revised), Ontario Department of Treasury and Economics, Feb. 1970.*

below certain levels–that is if they did not benefit financially from attendance at university.

In the next year or two much more study is expected to be given to such possible developments and it can be expected that there will be much more debate concerning the distributions of costs and benefits of higher education. In the meantime, the Committee on University Affairs has not proposed any changes in the program for 1970-71, except to provide for the larger numbers of eligible students.

With respect to graduate student support, and in view of the planning considerations outlined on pages 17-19 of this report, the Committee on University Affairs in 1969-70 recommended a reduction in the total funding of the Ontario Graduate Fellowship Program for 1970-71. The total for 1969-70 was $6 million, and for 1970-71, $5 million was recommended.

Direct Research Grants

In the Report of the Committee on University Affairs for 1967 it was recounted how the Committee became concerned with direct research grants from the Province of Ontario to individual university research workers, after the Department of University Affairs assumed responsibility for the research grant program of the Ontario Research Foundation. In 1966 this program had been re-shaped to focus attention on the support of projects that seemed to have direct relevance to the welfare and development of the Province of Ontario, and to provide assistance for junior members of university faculties to undertake such activities until they could compete for more adequate support from other granting agencies. This program was maintained to 1969 with the total grant amounts remaining at $750,000 in 1969-70. These sums are, of course, much smaller than the research grants made in Ontario by such agencies as the National Research Council, the Canada Council and the Medical Research Council. It is clear that the research grants program of the Department of University Affairs can hope to do little more than complement the programs of the main granting agencies. On the other hand, it must be acknowledged that formula operating grants provide indirect research support (for faculty salaries and general university overhead costs) that far exceeds the total of all direct research grants.

By 1969 it became evident that some further changes in the program were needed. On the one hand, there seemed to be some justification to extend the scope of the program to embrace the humanities and social sciences and, on the other hand, it was clear that the relatively small scale of the program dictated some fairly precise role for it. Following study by the Subcommittee on Graduate Studies and Research of the Committee on University Affairs, the following set of objectives was established:

1. That support be given to research projects for which there is a recognized need in Ontario, with particular relevance to current problems.
2. To encourage a teamwork approach from a variety of disciplines, research grants might be given for group projects which are cross-disciplinary in nature. Participation by all levels of the university community, including junior faculty and students, would be encouraged.
3. In order to encourage a serious approach to group projects, major awards might be given. The amount of each award, although not specifically set, could be as high as $50,000 for a single project, depending on its merit and applicability to Provincial needs.
4. Each proposal would include details of budgeting and estimates of expenditure which would show the scope and range of the research to be undertaken, the numbers and types of people involved, and estimates of the various components of costs. Payment would be made to the university on an instalment basis, with final payment being made upon completion of the project and submission of the research results.
5. The grant could be used for equipment, supplies, and travel specifically related to the project. The grant could not be used for salaries of full-time academic personnel, but might be used for salaries of technical assistants, consultants, research associates, and students.

Following acceptance and approval of these guidelines grants were made on this basis for fiscal 1970-71.

The more general questions of management and public policy for research and development are being debated fairly widely in Canada these days, particularly with respect to the posture of the Federal Government, and its science policy. Some better insight has been developed in the past few years as to the kinds of management and patterns of support required for research to be effective both in stimulating further intellectual development and in having some relevance to human problems.[2] It seems clear that research that is intended to have an influence on the solution of some practical problem is best funded by the agency responsible for that area of endeavour. Such "mission-related research" is, of course, a necessary part of almost

[2] The Role of the Federal Government in Support of Research in Canadian Universities, *J. B. Macdonald, L. P. Dugal, J. S. Dupre, J. B. Marshall, J. G. Parr, E. Sirluck, E. Vogt, with a Minority Report by L. P. Dugal; prepared for The Science Council of Canada and The Canada Council. (Special Study No. 7)*
Fundamental Research and the Universities, *Joseph Ben-David, Organisation for Economic Co-operation and Development, Paris, 1968.*

any kind of program review or development these days.

It is probably fair to say that many people, some occupying quite senior positions, see research as some kind of activity that is often irrelevant or even frivolous. It is little wonder that such people should question spending on research when there is financial stress. Ironically, it is in fact when financial resources are limited that new solutions and better approaches to the provision of services are most critically needed.

From this it might reasonably follow that the present Department of University Affairs program for assisted research possibly could be discontinued in favour of mission-related research support being provided directly by interested Ontario Government departments and agencies.

In a shift to mission-related research there will be a need for co-ordinating instruments, and simple direct lines of communication to cut down on bureaucratic red tape and the loss of time entailed in proposal writing.

The continued rapid growth of university enrolment coupled with the need to renovate old and obsolete facilities necessitates a continuing high rate of capital investment in university physical resource development.

Until 1964 capital grants were made annually on an unconditional basis. Starting in 1964 a system of individual project approval was inaugurated by the Department of University Affairs. By 1967 it had become evident that some more general and comprehensive criteria for determining capital grants were required. Given the general acceptability of the operating grants formula, it was already anticipated in 1967 that some corresponding objective system would be devised for capital grants.

The intent of the capital grants formula is quite simple. Capital grants should reflect the extent and quality of existing physical resources (and their intensity of use), should reflect certain general standards applied uniformly to all institutions, should control dollars rather than details of construction, should leave the universities free to undertake priority and resource allocation decisions on their own, and should give clear indication that private support would complement rather than substitute for public support.

As the first step in developing the capital formula it was necessary to undertake a complete inventory of all the physical resources of the Ontario universities. It was intended that this inventory would serve in certain general aggregated measures for the determinations by the Committee on University Affairs and for the administrative purposes of the Department of University Affairs, while at the same time serving individual institutions by providing them with more complete information on their own physical resources than had been available to them previously.

The firm of Taylor, Lieberfeld and Heldman were retained in 1967 as management consultants by the Joint Subcommittee on Capital Studies to undertake the physical resources inventory in conjunction with the individual institutions. While aggregated data on assignable space at each institution had become available by early 1969, the complete results of the inventory, including quality profiles and the like, will not be available before late 1970. To complement the inventory data, Taylor, Lieberfeld and Heldman were also asked to conduct certain analyses of space utilization against which it was intended to calibrate standards for space allocation. It is expected that this work also will be completed by late 1970. It had originally been hoped that this would have been done by the end of 1969, but the great volume of data and the complexities of the analyses required have caused unavoidable delays.

Notwithstanding these delays, and as recounted in the 1968-69 Report of the Committee on University Affairs, an interim capital formula was devised by the Committee on University Affairs in 1969 to meet a pressing need for criteria for capital allocations for fiscal 1969-70.

The basis concept of the interim capital formula was simply that the total space needs of the university (exclusive of residences and, for the time being, space for health and veterinary sciences) would be measured in terms of net assignable square feet[1] and derived according to a set of weights for different categories of students in a fashion roughly analogous to the weighting system for the operating grants formula. The categories and weights are set out below:

TABLE XIII
Interim capital formula

Categories	Weighting	Total net area per student[1]	Total ordinary, capital funding per student place
Undergraduate arts, general science, etc.	1	96 sq. ft.	$ 5,280
Honours science, undergraduate professional courses. Master's course in non-laboratory subjects	1.5	144	$ 7,920
Master's level in laboratory subjects	3	288	$15,840
Ph.D. in non-laboratory subjects	2	192	$10,560
Ph.D. in laboratory subjects	4	384	$21,120

[1] *Assignable area is the net plan area, excluding corridors and circulation space, mechanical service area, walls, janitor's closets and so forth.*

The total space required can, of course, be determined year by year for projected enrolments, and it is thus easy to construct a forward plan for a five-year horizon. A basic allocation inventory was then established. This is simply the inventory of space available and approved, or under construction, as of September 1, 1969. All capital cash flows after that date are determined as the difference between the total space needs according to the formula and the allocation inventory, multiplied by the average unit cost of space.

The significance of this is that the incentive to universities to build economically is clear and explicit. If space can be constructed at a lower unit cost than that established as standard in any given year, there will be no penalty or with-

[1] N.A.S.F. *is the area of any building which may be assigned to a specific academic, administrative or general university function and does not include circulation, service, and non-primary mechanical areas.*

drawal of funds, and the university will, in fact, enjoy additional space resources. On the other hand, if average costs exceed the unit cost allowance fixed, the university will be penalized by having somewhat less space than it would have enjoyed had the unit costs been lower, with no eligibility for any compensating assistance from Government sources.

It also should be noted that the capital formula has a "memory" in that it is simply cumulative, and capital entitlements not drawn remain available. Similarly, should capital entitlements be made available on the basis of projected enrolments which are not realized, there will be a corresponding subsequent delay in future funding.

On the basis of a survey of projects undertaken by Ontario universities, the Committee on University Affairs recommended early in 1969 that the average dollar allowance per net assignable square foot should be $55. Total project cost and net assignable area were chosen for the units of the space cost factor to provide control on total cost (including equipment), rather than just construction cost, and to relate this control to useful area. It is, of course, more common to consider building prices in terms of simple contract cost per gross area. The $55 allowance is made up of a $5 allowance for equipping, and a $50 allowance for other total project costs, all on an assignable square foot basis. With good design, institutional buildings average approximately 60% ratios of assignable to gross area so that the $50 allowance corresponds to $30 project cost per gross square foot. Project cost includes design fees, contingency allowances, and immediate landscaping and utility work. These factors total some $2 to $3 per gross square foot, leaving $27 to $28 per gross square foot for simple building contract cost.

For 1970-71, the Committee on University Affairs has recommended that the same cost index be maintained, notwithstanding some escalation in building cost indices as a result of inflation. This recommendation reflects the opinion of the Committee on University Affairs that some economies appropriately could be achieved in university building without impairing functional efficiency. It is the opinion of the Committee on University Affairs that the $55 allowance can lead to satisfactory quality levels, with good management and good design.

Beyond the capital formula, which provides for the total costs of building development, capital funds are required for other purposes such as land purchase and site development. It seems impossible to deal with such needs except by review of individual requests, and the Committee on University Affairs does this with the assistance of the Department of University Affairs. In 1970-71, recommendations for additional funds for new non-formula capital projects totalled $12.5 million.

In the 1969 hearings, it became evident to the Committee on University Affairs that plans for new university building had been developed for several campuses at quality levels that would carry costs much higher than the $55 standard. Plans were being developed for buildings which in some cases were frankly extravagant. While the notion of the capital formula provides for some variance above and below the cost standard set, it was the opinion of the Committee on University Affairs that such expensive building exceeded any reasonable variation. In such cases, it was the view of the Committee that designs that had been prepared might have to be scrapped in favour of complete redesign with more realistic standards.

Formula Revisions

In view of the prospect that the interim capital formula would have to serve for a second year at least, in 1970-71, the Committee on University Affairs, in response to arguments put forward in several university briefs, determined that amendments should be made to deal with several factors that had not been addressed originally. These included allowances for part-time students, for trimester enrolments, for "emergence", and for the age and quality of buildings.

For part-time students who are in attendance during the ordinary academic session there is evident need to provide an allowance for facilities such as libraries and office space where these students must be served in a manner that is simply additive to the requirements for regular full-time day students. Of course, no extra allowance is required for lecture rooms and laboratories. After assessing the situation, the Committee on University Affairs recommended an allowance of 24 net assignable square feet per full-time equivalent of the enrolment of part-time students. This corresponds to a weight of 0.25 in the capital formula.

For trimester students – that is, undergraduates enrolled in the third semester, particularly at Guelph and Waterloo – some additional space is required, but not as much as for part-time students during the regular session. An allowance of 12 net assignable square feet for each such student, that is half that provided for part-time students, was recommended.

For newer and smaller institutions which have certain requirements for space which cannot be fully utilized until enrolments build up, the Committee recommended provision of an additional allowance amounting to one-half of the difference between the space need generated by the formula and actual enrolments, and that which would be generated by an enrolment of 4,500 weighted students. By this means an institution with a weighted enrolment of 2,500 would be allocated the funds associated with an enrolment of 3,500,

and an institution with an enrolment of 3,500 would be allocated funds associated with an enrolment of 4,000. It should be noted that this allowance does not represent a permanent advantage but, rather, provides simply for an acceleration of the building program.

Obsolescence is clearly an important factor that needs to be treated in a standardized fashion that permits cyclical renewal. It seems likely that in future developments of the capital formula some writing off of inventory on a regular annual basis will be needed. For allocations for 1970-71, the Committee on University Affairs recommended provision of an allowance amounting to 30 per cent of the area of buildings over 40 years of age (which had not had a major renovation).

Five-year Plan

Table XIV shows prospective space requirements and indicated annual capital entitlements for the provincially assisted universities for the five-year planning period. These reflect updated inventory values as well as allowances for part-time and trimester students, emergence and the initial age-quality discount. It is to be noted that this table reflects institutional enrolment projections, including the projections of graduate enrolment contained in Table I. If, as seems likely, graduate enrolments grow rather more slowly, the capital plans indicated in Table XIV may in many cases be somewhat curtailed. Again it should be noted that the capital formula has a "memory". While the long-term nature of building programs necessitates the use of long-term enrolment projections, over-estimates in projections will simply lead to periods with no capital grants while enrolment catches up.

Reflecting a traditional pattern whereby universities had regularly obtained a significant share of financing for physical development from fund raising and private gifts, the capital grants policy of the Province had made room, since 1964, for a 15 per cent participation by private contributions, and from 1967, for a 5 per cent contribution. By 1969, it had become apparent that such a requirement could not be demanded as some kind of "tax" on private donors.

Clearly, however, there are still prospects for significant private fund raising by universities, and it seems likely that such funds can be generated most readily for special purposes and activities not included in the formula instead of for general revenue or general physical development. Accordingly, and reflecting the view that the $55 allowance should be carried forward unchanged, notwithstanding increases in building cost indices, the Committee on University Affairs also recommended for 1970-71 that the requirement of 5 per cent private financing be removed and that the Government of Ontario finance 100 per cent of approved costs of projects qualifying under the interim capital formula scheme.

System Building

In 1966 there had been inaugurated in Toronto a special Study of Educational Facilities (SEF) under the general direction of the Metropolitan Toronto School Board, with sponsorship by that Board, by the Educational Facilities Laboratories of New York, and by the Ontario Department of Education. The result was the development of an industrialized building system of "open" character.[2]

Under the SEF program functional or performance specifications were developed for a set of building elements or sub-systems[3] that provided, in comparison with conventional school building, substantial improvements in quality and flexibility. These were realized with some significant net saving in cost. SEF buildings must be individually designed by architects and engineers who work with a set of building components of precisely specified dimensions and performance. The performance features of the SEF system include the facility to re-locate partitions without damaging floor finishings, high design floor loads (100 psf), and large clear span capacity (up to 65 feet), along with high levels of illumination and excellent electrical and mechanical services. Although the SEF building system was developed for elementary schools, the question came to be asked whether SEF buildings might be more economic and better in many ways than numbers of buildings recently constructed for Ontario universities.

In the fall of 1969, arrangements were made to have Mr. Roderick G. Robbie (of Robbie, Vaughan and Williams, Architects of Toronto), who had been technical director for the SEF Project, address a joint meeting of the Committee on University Affairs and the Committee of Presidents of Universities of Ontario concerning the SEF system. This presentation generated much interest–along with some concerns and apprehensions. It was agreed that further exploration of the possible uses of system building for universities in Ontario should be undertaken.

The Committee on University Affairs and the Committee of Presidents designated Mr. D. M. Hedden, Dr. J. B. Macdonald, Mr. J. D. McCullough and

[2] *"Closed" systems are either proprietary in nature or can accommodate only a single mix of building components; "open" systems permit complete flexibility and are adaptable to any system element meeting interface requirements.*

[3] *Structure; atmosphere; lighting-ceiling; interior space division; vertical skin; plumbing; electric-electronic; caseworks; roofing; interior finishes.*

TABLE XIV

Space and cash flow entitlements for Ontario universities, 1969-74

All figures in thousands

	Brock	Carleton	Guelph	Lakehead	Laurentian	McMaster	Ottawa	Queen's	Toronto	Scarborough	Erindale	Trent	Waterloo	Western	Windsor	York	Glendon	University System
69/70																		
Cum. Total Space Req.[1]	316	860	775	366	315	924	743	918	2,264	309	262	285	1,256	1,196	632	791	108	**12,319**
Allocation Inventory[2]	278	998	1,052	351	320	1,049	476	1,105	2,686	196	208	271	1,139	1,178	692	1,192	154	**13,343**
Cum. New Space Entitle.[3]	38	•	•	15	•	•	267	•	•	113	54	14	117	18	•	•	•	**636**
Cum. Cash Flow Entitle.[4]	3,546	•	•	2,034	1,127	•	19,984	•	•	6,246	4,547	1,554	12,910	9,613	2,287	•	•	**63,848**
Cum. Formula Cash Flow[5]	•	396	537	•	•	907	4,507	827	•	190	828	•	1,769	957	828	1,355	•	**13,101**
Rem. Cum. Cash Flow Ent.[6]	3,546	•	•	2,034	1,127	•	15,477	•	•	6,056	3,709	1,554	11,141	8,656	1,459	•	•	**54,759**
70/71																		
Cum. Total Space Req.	343	969	865	388	340	1,011	824	979	2,304	309	290	299	1,374	1,336	717	1,021	115	**13,485**
Allocation Inventory	278	998	1,052	351	320	1,029	461	1,105	2,632	196	208	271	1,139	1,162	675	1,192	154	**13,221**
Cum. New Space Entitle.	64	•	•	37	20	•	363	•	•	114	82	28	235	175	42	•	•	**1,161**
Cum. Cash Flow Entitle.	4,933	4,714	•	3,290	2,208	4,771	24,137	•	•	7,339	5,682	2,290	13,921	16,584	6,627	•	•	**96,497**
Cum. Formula Cash Flow	•	396	537	•	•	3,948	11,315	827	•	190	828	•	2,139	4,024	2,928	7,251	•	**34,383**
Rem. Cum. Cash Flow Ent.	4,933	4,318	•	3,290	2,208	823	12,822	•	•	7,149	4,854	2,290	11,782	12,560	3,699	•	•	**70,729**
71/72																		
Cum. Total Space Req.	368	1,084	977	411	360	1,115	896	1,065	2,364	329	311	313	1,392	1,463	796	1,185	123	**14,552**
Allocation Inventory	278	998	1,048	351	320	1,029	457	1,105	2,581	196	208	271	1,139	1,162	675	1,192	154	**13,163**
Cum. New Space Entitle.	90	86	•	60	40	87	439	•	•	133	103	42	253	302	120	•	•	**1,754**
Cum. Cash Flow Entitle.	6,153	10,883	948	4,210	3,527	11,575	29,022	1,980	•	8,700	6,792	3,159	18,188	22,413	11,088	9,722	•	**148,359**
Cum. Formula Cash Flow	•	396	537	•	•	5,360	11,315	827	•	190	828	•	2,139	5,423	5,028	7,660	•	**39,703**
Rem. Cum. Cash Flow Ent.	6,153	10,487	411	4,210	3,527	6,215	17,707	1,153	•	8,510	5,964	3,159	16,049	16,990	6,060	2,062	•	**108,656**
72/73																		
Cum. Total Space Req.	390	1,196	1,061	427	384	1,239	969	1,141	2,424	354	331	328	1,470	1,569	877	1,369	128	**15,656**
Allocation Inventory	278	998	1,044	351	320	1,029	441	1,105	2,581	196	208	271	1,139	1,162	675	1,192	154	**13,143**
Cum. New Space Entitle.	112	198	17	77	64	210	528	36	•	158	123	57	331	408	202	177	•	**2,697**
Cum. Cash Flow Entitle.	7,402	17,069	6,089	4,951	4,781	17,382	33,174	4,900	•	10,065	7,903	4,074	21,542	27,984	16,208	19,812	•	**203,334**
Cum. Formula Cash Flow	•	396	537	•	•	5,416	11,315	827	•	190	828	•	2,139	5,423	5,514	7,660	•	**40,245**
Rem. Cum. Cash Flow Ent.	7,402	16,673	5,552	4,951	4,781	11,966	21,859	4,073	•	9,875	7,075	4,074	19,403	22,561	10,694	12,152	•	**163,089**
73/74																		
Cum. Total Space Req.	413	1,308	1,139	441	407	1,345	1,038	1,194	2,480	379	352	345	1,531	1,670	970	1,552	128	**16,691**
Allocation Inventory	278	998	1,029	351	320	1,029	435	1,105	2,551	196	208	271	1,139	1,162	675	1,192	154	**13,092**
Cum. New Space Entitle.	135	310	111	90	87	316	603	89	•	183	144	74	392	509	295	360	•	**3,697**
Cum. Cash Flow Entitle.	8,623	22,497	12,531	6,072	6,081	23,000	40,461	7,424	312	11,435	9,732	4,926	24,091	33,434	21,951	28,973	•	**261,542**
Cum. Formula Cash Flow	•	396	537	•	•	5,416	11,315	827	•	190	828	•	2,139	5,423	5,514	7,660	•	**40,245**
Rem. Cum. Cash Flow Ent.	8,623	22,101	11,994	6,072	6,081	17,584	29,146	6,597	312	11,245	8,904	4,926	21,952	28,011	16,437	21,313	•	**221,297**
74/75																		
Cum. Total Space Req.	435	1,407	1,225	461	431	1,447	1,117	1,240	2,537	404	381	361	1,577	1,770	1,074	1,719	128	**17,712**
Allocation Inventory	278	998	997	351	320	1,029	381	1,105	2,531	196	204	271	1,139	1,162	675	1,192	154	**12,983**
Cum. New Space Entitle.	157	409	228	110	111	418	736	135	6	208	177	90	438	608	399	527	•	**4,755**
Cum. Cash Flow Entitle.	10,339	27,944	17,578	7,480	7,661	30,108	43,750	9,546	3,459	13,470	10,811	5,783	26,275	38,197	28,019	37,553	•	**317,973**
Cum. Formula Cash Flow	•	396	537	•	•	5,416	11,315	827	•	190	828	•	2,139	5,423	5,514	7,660	•	**40,245**
Rem. Cum. Cash Flow Ent.	10,339	27,548	17,041	7,480	7,661	24,692	32,435	8,719	3,459	13,280	9,983	5,783	24,136	32,774	22,505	29,893	•	**277,728**

1 *Cumulative Total Space Requirement (in net assignable square feet): Determined from university projected enrolments according to the standards and weights of the interim capital formula. Allowances have been made for emergence and for the requirements for part-time, trimester and co-operative enrolments.*

2 *Allocation Inventory (in net assignable square feet): Actual net assignable square foot areas available as of September 1969 plus the net assignable square foot areas of any additional projects given approval prior to April 1st, 1969, less scheduled deletions. In addition, an inventory discount allowance has been made for space over 40 years old.*

3 *Cumulative New Space Entitlement (in net assignable square feet): Results of subtracting the allocation inventory from the cumulative total space required.*

4 *Cumulative Cash Flow Entitlement (in $): Calculated by multiplying the cumulative new space entitlement by $55 per net assignable square foot.*

5 *Cumulative Formula Cash Flow (in $): The amount of funds for formula projects which have received approval since April 1st, 1969 the areas of which have not been included in the allocation inventory. The financial assistance for these projects is a debit against the cumulative cash flow entitlement for formula projects. The amounts are as reported by the universities in their submission "Presentation on a Cash Flow Basis of Long Term Capital Development" (Part A—revised January, 1970).*

6 *Remaining Cumulative Formula Cash Flow Entitlement (in $): Calculated by subtracting the cumulative formula cash flow from the cumulative cash flow entitlement. Necessarily the amounts shown do not include funds for essential non-formula projects.*

NOTE: Negative figures in the case of 'cumulative new space entitlement' and 'remaining cumulative cash flow entitlement' have been set at zero.

Dr. D. T. Wright, to explore the possibility of developing a proposal for a system building experiment for university construction. Some results from this work are expected in the fall of 1970.

In the meantime, and separately, there had been some informal discussion with Mr. M. DuBois, Mr. R. Thom, Mr. P. Webb and Mr. M. Yolles, who, working as architects and engineers, were aware both of the SEF development and of university needs and concerns. With their assistance and co-operation, a two-day seminar was held to discuss the possible usefulness of system building for universities from the particular point of view of the design professions. This seminar was held in March, 1970, under the sponsorship of the Committee on University Affairs. Those in attendance included approximately 50 architects, industrial designers, surveyors, engineers, manufacturers and contractors, as well as members of the Joint Committee on Capital Studies of the Committee of Presidents and the Committee on University Affairs and two officials from the Department of University Affairs.

There was agreement amongst the participants in the seminar that the systems approach, and in particular the software aspects of that approach, should be adopted by the Ontario universities and, further, that "hardware" (actual building elements) should be developed for those areas in the universities most amenable to the approach based both on an analysis of user requirements and on an examination of available SEF and traditional hardware. While it was acknowledged that it would be highly desirable to develop a university building systems approach on a voluntary basis, it was also recognized that economic realism meant that a substantial volume or package of work would have to be offered to industry before industry would invest in the development and bidding costs implicit in the systems approach and that the development of such a package of work depended on guaranteed commitments on the part of or on behalf of the universities.

While many attending the seminar were apprehensive about aesthetic implications of a regional systems approach, most felt that this issue could be satisfactorily resolved if the design professions were involved from the very beginning of the development of systems components and if sufficient variety of subsystem options (especially wall systems) were available. In terms of the universities, it was noted that under the formula system there was a clear incentive to achieve maximum building for dollars applied and that there should be no impediment to the implementation of a systems building program provided that an equal or better building product was possible with less capital investment than at present.

It was agreed that offices, classrooms and some types of laboratories were amenable to a systems approach and that suitable hardware could be readily developed for such applications. With respect to the individuality of architectural style of the various universities, it was stated that the problem of individuality was not directly related to the use of a systems approach and further that "much of what stood for individuality today was merely the architectural fashion of the moment". It was also pointed out that it should be possible to take an approach which would permit the substitution of traditional construction for any desired subsystem component in order to ensure a blend with any particular campus style.

Housing

With the establishment of the Ontario Student Housing Corporation in 1966 and the introduction of new and more economic practices for the development of student housing, the Committee on University Affairs had taken the view that the development of student housing could proceed on demand, subject only to the general requirement that there would be no direct subsidy of such housing, with all capital costs being met through rental charges. This system worked quite well until 1969, as indicated by the following tabulation:

TABLE XV

Student housing development 1964-1969

Year	Total value of loans approved	Single beds	Married units
1964	$ 11,970,000	2,117	•
1965	$ 21,055,000	3,872	•
1966	$ 10,155,000	2,372	96
1967	$ 43,348,000	4,878	1,108
1968	$ 42,975,000	7,174	775
1969	$ 31,752,000	3,308	1,193
1964-69	$161,255,000	23,722	4,785

Ref: Canadian Housing Statistics, Economics and Statistics Division, Central Mortgage and Housing Corp.

At the end of 1969 the availability of mortgage funds for student housing from the Central Mortgage and Housing Corporation of the Government of Canada became severely restricted with only $10 million provided for Ontario for 1970. The Committee on University Affairs was asked to advise on the allocation of mortgage funds.

Initial allocations for 1970 were made after a review of projects proposed by the universities. In this review it became evident that very little information was available on which to base such judgments. The stock and mix of housing in the communities, the proportion of students living away from home, and even the nature of present facilities for student housing often were not known. Accordingly, the Committee on University Affairs requested that a study be carried out to determine what planning factors must be considered. The results of this study may be available before the end of 1970.

What is, of course, evident from the outset is that the growth of several universities in the province seems largely dependent upon the provision of housing for their students. While many students in fact live within commuting range, many students must leave home to attend university either because there is no university within commuting range, or to pursue courses of study not locally available.

Beyond the kind of planning information outlined above, numbers of other questions perhaps may need to be asked about university student housing. There seems to be a good deal of evidence that traditional university student housing with students living two or even more to a room, in buildings with large common rooms and dining halls (with room and board usually sold as an inseparable package), and continuing vestiges of *in loco parentis*, does not represent what many young people seek. Moreover, it would appear that simpler and less institutional arrangements with flat or apartment style construction, without dining halls but with provision for small individual kitchens in each flat might be not only a good deal more popular but less expensive.

More critical still is the general question: why provide student housing at all, except perhaps in some very special circumstances? Might it not be more reasonable to see only the problem of the provision of housing in general? Should students be in separate, special communities on campus, or should they be living in the community that sustains the university? Might it not be worthwhile to plan for housing that could be occupied by students or by other people with little or no conversion cost?

Is the traditional Ontario university pattern of a common scale of rents for all housing facilities on each campus realistic? This often produces pressures to upgrade decent but less luxurious older facilities to match quality levels of newer facilities so that a common rent scale can be applied. There seem to be many good reasons to separate room rental from meal contracts. If zoning regulations could be overcome, it might be possible to provide a large increment in student places at quite low cost through the provision of low interest loans to householders to make conversions to provide student places.

In 1969-70, there were 26,260 units of institutional student housing for 98,200 full-time university students, On some campuses, at least, a large proportion of student growth must be provided with some kind of housing. If 50 per cent of the full-time student growth needs to be provided with housing there must be added every year over 4,800 student beds for an annual average capital investment of the order of $29 million.

As we near the end of 1970, we find ourselves in a significantly different educational climate. Somewhat tarnished are some of the myths and promises of the past. We are beginning to question higher and higher and more and more educational degrees as an open sesame to greater riches, happiness and a life of quality. General rising costs in a somewhat decelerated economy are generating anxiety and discomfort in increasing numbers of young and old. Polarized American rhetoric flowing northward with increasing intensity could possibly find an accepting audience in some sectors of the public too easily persuaded that universities are the centres of sedition and the basic cause of unrest.

The challenge before us is a great one. Against the backdrop of the "Statement of Issues" prepared by the Commission on Post-Secondary Education we may be called upon to probe in depth, understand, interpret and justify the university experience within a much broader spectrum of educational services to meet the needs of a far larger, more diverse proportion of our society. We may be forced to re-define the role of the university as an integral part of society, which has not only to cherish, preserve, communicate, create and inspire knowledge but also to carry a greater responsibility to pinpoint issues, and seek non-gimmicky, sometimes unfashionable solutions to human problems pounding at our very doors.

The major challenge for the total university community may lie in assuming a statesman-like, positive, leadership role, capable of warding off and absorbing scapegoat attacks from both left and right factions so that it will survive. The nurturing of the right to think, to dissent, to enquire and to seek better solutions cannot be underestimated or taken for granted. The major thrust, traditional though it may sound for all centres of learning, may indeed lie in those pursuits which liberalize, civilize and humanize people, so that tomorrow will not be a return to the jungle, to an age of violence, providing a feeding ground for man's inhumanity to his fellow man, but will offer instead an opportunity for compassion and hope in the struggle to elevate the human condition.

Appendix

OC-4157 64
Copy of an Order-in-Council approved by His Honour the Lieutenant-Governor, dated the 17th day of December, A.D. 1964.

The Committee of Council have had under consideration the report of the Honourable the Minister of University Affairs, dated December 9th, 1964, wherein he states that,

WHEREAS subsection (3) of Section 3 of the Department of University Affairs Act, 1964, provides that the Lieutenant-Governor in Council may appoint such committees or other consulting bodies as are deemed necessary from time to time;

AND WHEREAS it is expedient to establish a committee to study matters concerning the establishment, development, operation, expansion and financing of universities in Ontario and to make recommendations thereon to the Minister of University Affairs for the information and advice of the Government;

The Honourable the Minister of University Affairs therefore recommends that a Committee on University Affairs be appointed, effective 19th November, 1964, to consist of twelve members, one of whom shall be Chairman, and any six of whom shall constitute a quorum; the said Committee to study matters concerning the establishment, development, operation, expansion and financing of universities in Ontario and to make recommendations thereon to the Minister of University Affairs for the information and advice of the Government.

The Committee of Council concur in the recommendation of the Honourable the Minister of University Affairs and advise that the same be acted on.

Certified,

A. V. Young,
Clerk, Executive Council.

Report of the Committee on University Affairs of Ontario 1969-70